## CROP WILD RELATIVES DATABASE

National Bureau of Plant Genetic Resources (Indian Council of Agricultural Research)

## TUTORIAL





HOME ABOUT SIMPLE SEARCH ADVANCED SEARCH HELP CONTACT

This web portal of genetic and genomic resources of Vigna Phaseolus provide linking information of specific gene, E Nucleotide and Protein with a functional importance to germplasm Genebank\_Id. This may assist molecular breeder incorporating the germplasm Genebank\_Id in precision bree programme. The present scenario of global climatic cham unsustainability of input intensive agriculture, search for m genes for food and nutrition, biotic and abiotic stresses h increased the focus on collection, conservation and utilization potential diversity in the near future to come. So, there is an urg need to test more and more plant species against the three nature and to meet with the challenges by initiating targe collection and conservation of plant genetic resources inclu-wild relatives of crop plants, and their characterization evaluation with linking to genomic resources for gre understanding in the form of single window accessibility botanists, breeders, geneticists, genomic and F researchers as well as students.

CONTACT INFORMATION	
Name	
Email	
Subject	
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### Home >

By clicking on the link or typing http://www.nbpgr.ernet.in:8080/cwr/iHome.as px in the address bar, you reach the homepage of this application.

The Home page of the application to introduce the purpose of the application. It is clearly show that the hosting institution is NBPGR which is the part of ICAR, by clicking of the logos you can reach respective homepages.

The gray strip links to other pages of the application. Terms and condition is given at the bottom. Copyright rests with NBPGR.

We can send feedback or any suggestion to contact person through this page.

## Genetic and Genomic Resources of About> Taxonomy Taxonomic data of Vigna and Phaseolus species Vigna and Phaseolus species were obtained from USDA ARS-GRIN. The data included information on following 56 species in ABOUT SIMPLE SEARCH ADVANCED SEARCH HELP CONTACT next image in organism box. hetic and Genomic Resources CONTACT INFORMATION GFRS PLASM Marris Email Subject Genetic and Genomic Resources of About> Taxonomy After clicking on organism name, we can show the taxonomy details as common name, family, Vigna and Phaseolus species genus, species, subspecies and other details. HOME ABOUT SIMPLE SEARCH ADVANCED SEARCH HELP CONTACT Taxonomy axonomic data of Vigna and Phaseolus species were obtained from USDA ARS-GRIN https://npgsweb.ars-grin.gov/gringloba taxon/taxonomysearchowr.asox The data included information on following S6 species Organism Name Taxonomy Details Vigna Trilobata Vigna Trinenvia Var. Bourneae Vigna Umbellata Var. Gracilis Vigra Unguiculata Vigna Unguiculata Group Biflora Vigna Unguiculata Group Sesquipedalis Vigna Unguiculata Group Unguiculata Vigna Unguiculata Subsp. Alba Comman name





## Genetic and Genomic Resources of Vigna and Phaseolus species





## Genetic and Genomic Resources of Vigna and Phaseolus species

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TAXONOM onserve crop species along with crop wild relatives. Vigna and Phaseolus species germplasm mainly conserved in India USDA ARS-GRIN. Passport data are available from many sources. Germplasm passport data of Vigna and Phaseolu I three different Gene bank database sources, which include ICAR-NBPGR (National Bureau of Plant Genetic Resources OPGRPortal/), USDA ARS-GRIN (https://npgsweb.ars-grin.gov/ginglobal/laxon/taxonomysearchew.raspx) and Genesy. GENOMIC ETEAM genetic resources (https://www.genesys-pgr.org). Genesys PGR genetic resources has collected information from the second state of the second

#### Institute Name

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## About> Taxonomy

After click on "Vigna Unguiculata" to show the taxonomy details and image of this species.

## About> Taxonomy

We can zoom image on mouse hove over on the image and also see the full image of this species.

## About> Germplasm

Genebanks worldwide conserve crop species along with crop wild relatives. Vigna and Phaseolus species germplasm mainly conserved in Indian national genebank and USDA ARS-GRIN. Passport data are available from many sources. Germplasm passport data of Vigna and Phaseolus species were taken from three different Gene bank database sources, which include ICAR-NBPGR (National Bureau of Plant Genetic Resources).

This page can be help to search by institute wise species details.

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Institute Name		Germplasm Details				
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Plant Breeding and Acclimatization Institute, Poland, EURISCO	monute nume	Hadonal Darcas of Francisco				
Plant Production Research Center Piestany, Slovak Republic, EURISCO	Institute Code	NBPGR				
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Scientific Center of Agrobiotechnology, Armenia, EURISCO						
Suceava Genebank, Romania, EURISCO		Organism Wise				
University of Agricultural Sciences and Veterinary Medicine Timisoara, Romania, EURISCO						
Ustymivka Experimental Station of Plant Production, Ukraine, EURISCO		Organism	Number			
Warwick Genetic Resources Unit, United Kingdom, EURISCO	Viona Bourneae					
Western Regional Plant Introduction Station, USUA-ARS, Washington State University, , United : Arian Vesetable Desearch and Development Center, Taiwan				-		
Asian vegetable Research and Development Center, Tanvall Centro Nacional da Recursos Fitonanáticos: Snain FURISCO	Vigna Aconitifolia		<u>1489</u>			
College of Agriculture at Križevci, Croatia, EURISCO						
Gembloux agro-biotech, Université de Liège, département des Sciences agronomiques, Phytotech	Vigna Unguiculata Subsp	/. Sesquipedalis	12			
Genetic Resources Institute, Azerbaijan, EURISCO	Viena Vevillata		107			
Genetic Resources Institute, University of Banjaluka, Bosnia and Herzegovina, EURISCO	Vigila Volilata		107			
Greek Genebank, Agricultural Research Center of Macedonia and Thrace, National Agricultural Re	Phaseolus Lunatus		49			
Institute for Plant Genetic Resources 'K. Malkov', Bulgaria, EURISCO						
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#### Genebanks

Genebasks worldwide conserve crop species along with crop wild relatives. Vigna and Phaseokal species permission mainly conserved in Indian rational penduark and USOA APS-ORIA These were around \$3876 Genebank\_lds of Vigna and Phaseokals species collected from all three and three penduarks and USOA APS-ORIA These were around \$3876 Genebank\_lds of Vigna and Phaseokals species collected from all three around the second s

Cinsitu	te Name 1	lational Burea	u of Plant Ger	netic Resour	ces,Delhi,JNDia	>	Species Ph	aseolus coccine	• )
Genetark (d	Comman_na	me Organism	Collitario	Culivar Nar	e BoStatus	Source	Date of Coleco	en veletark	D8.16
C0312431	Scarlet Runner	Phaseolus coccineus			OTHERS	INDIA	03-01-2000	MBPGR	
C0278524	Scarlet Runner	Phaseolus coccineus	LB/200049	Bellavarai	OTHERS	NDIA	14/12/2000	NBPGR	
IC0278479	Scarlet	Phaseolus	LB/200004	Belavara	OTHERS	INDIA	12-12-2000	NBPGR	

## Genetic and Genomic Resources of Vigna and Phaseolus species



## ABOUT SIMPLE SEARCH ADVANCED SEARCH HELP CONTACT We TAXONOMY enetic and Genomic Resources CONTACT INFORMATION This genetic and genomic resources of Vigna and Phaseolus provide incore transformed and genomic resources of Vigna and Phaseolus provide incore transformed and genomic changes, unsustainability of input intensive agriculture, search for novel genes for food and nutrition, biotic and abiotic and biotic and potential diversity in the near future to come. So, there is an urgent need to test more and more plant species against the threat of nature and to meet with the challenges by initiating targeted collection and conservation of plant genomic resources for Grop plants, and their characterization and evaluation with linking to genomic resources for greater understanding in the form of single window accessibility to botanists, breeders, geneticists, genomic and PGR researchers as well as students. SEND

### About> Germplasm

After click on the name of institute as "National Bureau of Plant Genetic Resources, Delhi, India", we can see the details of species are conserve in prospective institute.

If we have click on institute code as"NBPGR" then go to FAO categorised institute page.

We click on red circle as number 2 as "Vigna Bourneae" then after we can see the next image which are full details of germplasm.

### About> Germplasm

We see here institute name and species details as

Genebank\_Id,Comman\_name,Organism,CollNu mb,Cultivar\_Name,BioStatus,Source Country,Date\_of\_Collection,Genebank,DB\_Id.

### About> Genomic

The genomic data mainly included sequences of nucleotide, EST, protein and gene of Vigna and Phaseolus species.

This page used to search genomic data.

localhost:4168/GenomicResource.aspx

Admin Home Serach Advanced Serach Help Cor

Organism Name	(	Genomic Details
Phaseolus Polystachios Subsp. Rolystachios Buccoss Polystachios Subsp. Sirubitas Phaseolus Vulgaris Phaseolus Activitas Phaseolus Polystachios Phaseolus Polystachios		Organism Name Phaseolus Vulgaris
Vigna Angularis Vigna Angularis Var. Angularis Vigna Angularis Var. Noponensis Vigna Bourneae	EST	123868
Vigna Dalzellana Vigna Hainiana Vigna Khandalensis Vigna Konkaensis	Nucleotide	102026
Vigno Minima Vigno Mungo Var. Mungo Vigno Mungo Var. Silvestris Vigno Pilosa	Protein	224
Vigna Radiata Vigna Radiata Var. Radiata Vigna Radiata Var. Sublobata	Gene	28266

## About> Genomic

After clicking on organism name, we can see the number of genomic resources.

We can see the full details of genomic resources after click on hyperlink as number. If we click on red oval as protein "774" then we can show in next image.

### About> Genomic

If we want to show the EST, Nucleotide, Germplasm and gene then click on respective tab.

## Genetic and Genomic Resources of Vigna and Phaseolus species



# Genetic and Genomic Resources of Vigna and Phaseolus species



Vigna and Phaseolus species



### Simple Search>

This page is used for Boolean search for this application.

We can enter any key in textbox after that click on search button, to show the number of species.



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1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Germplasm:	<u>4221</u>	EST:	<u>829</u>	
	Gene:	<u>190</u>	Nucleotide:	<u>99024</u>	
	Protien:	668			

## Genetic and Genomic Resources of Vigna and Phaseolus species



ABOUT SIMPLE SEARCH ADVANCED SEARCH HELP CONTACT

Genetic and Genomic Resources of

Vigna and Phaseolus species

HOME ABOUT SIMPLE SEARCH ADVANCED SEARCH HELP CONTACT

rch Results									668 search result	s keyword: vigna rad
			Germpla	asm ES	T Nu	ıcleoti	de Gene P	rotien		
Search :				F	ilter					
<u>Genebank_Id</u>	<u>Organism</u>	<u>GI</u>	<u>Version</u>	<u>Locus</u>	<u>Length</u>	<u>Type</u>	<u>Definition</u>	<u>Cultivar</u>	Product	EC_number Orga
AAC12797	Vigna radiata	2502085	AAC12797.1	AAC12797	145 aa	linear	adenosine triphosphatase, partial [Vigna radiata].		adenosine triphosphatase	3.6.1.3
AAC12798	Vigna radiata	2502087	AAC12798.1	AAC12798	164 aa	linear	adenosine triphosphatase [Vigna radiata].		adenosine triphosphatase	3.6.1.3
AAQ95731	Vigna radiata	37654368	AAQ95731.1	AAQ95731	448 aa	linear	phospholipase C, partial [Vigna radiata].		phospholipase C	

## Simple Search>

We enter key "vigna radiata" in textbox after that click on search button, to show the number species as in image. Click on protein hyperlink to show details of species of protein.

## Simple Search>

See full details of genomic resource of protein as GeanbankId, GI, Version, Locus, Length, Type, definition, cultivar, product, EC\_number, organelle, gene, pubmed and authors. If we click on another tab to show prospective details.

## Simple Search>

2

This page also provides facility to search data in populated view, and also we can sort data on clicking header name as red circle in image.



## The above strip is navigate to another page of

3 4 5 6

Genetic and Genomic Resol Vigna and Phaseolus species	urces of		Simple Search This page also excel file. Clic in respective	h> o provides k on excel tab. After	facility to ex logo for do download e	xport data wnload da excel file v	in Ita we
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Search Results	668 search	results keyword: vigna radiata					
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phospholipase C, 3 AAQ95731.1 AAQ95731 448 aa linear pantial [Vigna phosph radiata].	nolipase C PLC1	Kim,Y.J., 14706839 Kim,J.E., Lee,JH. and Kim,W.					
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Genebank Id Organism	<u>GI Version</u>	Locus Length	<u>Type Definition</u>	<u>Cultivar</u>	Product	EC number	Organe
AAC12797 Vigna radiata	2502085 AAC12797.1	AAC12797 145 aa	adenosine triphosphatase , partial [Vigna linear radiata].		adenosine triphosphatase 3	.6.1.3	
AAC12798 Vigna radiata	2502087 AAC12798.1	AAC12798 164 aa	adenosine triphosphatase linear [Vigna radiata].		adenosine triphosphatase 3	.6.1.3	
			phospholipase	-	phospholipaso		
→ → → renort (2) / *			4				•



### Advanced Search>

"Advanced search" facilitates the enhanced use of this CWR database. It provides search facility to select species scientific name with their genomic data (Nucleotide, EST and protein) and also their respective germplasm data and their source (genebank source) based on common cultivar. The advanced search is an attempt to join the genebank and genbank ends in anticipation of adding value to germplasm leading to their enhanced utilization.



HOME ABOUT SIMPLE SEARCH ADVANCED SEARCH HELP CONTACT



Vigna and Phaseolus species



IOME ABOUT SIMPLE SEARCH ADVANCED SEARCH HELP CONTACT

Advance Search		
Advance search	Species	Phaseolus vulgaris
"Advanced search" facilitates the enhanced use of this CWR database. It provide search facility to select species scientific name with their genomic data (Nucleotide, EST and protein) and also their respective gemplasm data and their source (genebank source) based on common cultivar. The advanced search is an attempt	Country	jal JAPAN
to join the genebank and genbank ends in anticipation of adding value to germplasm leading to their enhanced utilization.	Genebank	Select Data Source
	Genomic Resources	Select Type
		Search

## Advanced Search>

In advanced search there are four criteria based on different selection.

First criteria are based on species name, select species from drop down list and click on search button, find respective data.

### Advanced Search>

Second criteria is country name, we are start typing in textbox to display automatically country name, select and click search button.

### Advanced Search>

Third criteria is genebank, we can select from dropdown list, after that click on search button.

Vigna and Phaseolus species



HOME ABOUT SIMPLE SEARCH ADVANCED SEARCH HELP CONTACT



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Phaseolus vulgaris

COLOMBIA

EST

### Advanced Search>

Forth criteria are based on species, country, genebank, and Genomic Resources. We are select species, country, genebank and also select genomic resource, after that click on search button to show data view in next image.

Nu	imbres of record	<u>species</u>		<u>country</u> Genomic Reco	ds Details	<u>Genebank</u>		Genomic type
1	1215 Records fo	or Phaseolus vulga	ris species from	COLOMBIA count	ry from NBPG	R genebank and for g	enomic resources of	EST type
1	Organism	Comman_name	Genebank_Id	Cultivar_Name	Source Country	Genebank	Date_of_Collection	GI Number
	Phaseolus vulgaris	French Bean	EC0500880	G19833	COLOMBIA	NBPGR	20/7/2002	<u>256404049</u>
	Phaseolus vulgaris	French Bean	EC0500880	G19833	COLOMBIA	NBPGR	20/7/2002	256404050
	Phaseolus vulgaris	French Bean	EC0500880	G19833	COLOMBIA	NBPGR	20/7/2002	256404051
	Phaseolus vulgaris	French Bean	EC0500880	G19833	COLOMBIA	NBPGR	20/7/2002	256404052
	Phaseolus vulgaris	French Bean	EC0500880	G19833	COLOMBIA	NBPGR	20/7/2002	256404053
	Phaseolus vulgaris	French Bean	EC0500880	G19833	COLOMBIA	NBPGR	20/7/2002	256404054
	Phaseolus vulgaris	French Bean	EC0500880	G19833	COLOMBIA	NBPGR	20/7/2002	256404055
	Phaseolus vulgaris	French Bean	EC0500880	G19833	COLOMBIA	NBPGR	20/7/2002	256404056
	Phaseolus vulgaris	French Bean	EC0500880	G19833	COLOMBIA	NBPGR	20/7/2002	256404057
	Phaseolus vulgaris	French Bean	EC0500880	G19833	COLOMBIA	NBPGR	20/7/2002	256404058
4_	Organism	Comman_name	Genebank_Id	Cultivar_Name	Source Country	Genebank	Date_of_Collection	GI Number
Get S	elected Fasta F	Down	nload selected Fas	sta file		down	load data in exce	

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#### Advanced Search>

Download fasta File: First select checkbox in right side in populated data view after that click on "Get Selected Fasta File" button, open a save dialog box as given image. We can save file in your hard drive or directly open in your system. We can export all data in excel file after clicking on excel logo.

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GI Number

### Advanced Search>

Click on hyperlink GI number as "blue number" to show the full details in next image.

## Genetic and Genomic Resources of Vigna and Phaseolus species

GI Details	Genebank_ld	Version	Organism	Length M	lol_Type	Definition	Cultivar	Product Orga	nelle Gene	Pubmed	Authors
256404049	GO477897	GO477897.1	Phaseolus vulgaris	150 bp п	nRNA	Clone 1243 Phaseolus vulgaris leaf EST library PV_GEa Phaseolusvulgaris cDNA, mRNA sequence.	G19833			19646251	Blair,M.W., Munoz Torres,M., Giraldo,M.C and Pedraza,F.
			vulgaris	bp		PV_GEa Phaseolusvulgans cDNA, mRNA sequence.					Giraldo and Pedraz

## Advanced Search>

After click "GI Number" to show the Geanbank id, Version,Organism,Lenth,Mol\_type,Difinitio n,Cutivar,Product,Organelle,Gene,Pubmed, Authors and also see the sequence of fasta file.

### Contact>

Information contained in this application is a result of various sources.

User desirous to know more about these activates can contact the relevant persons whose contact details are given.

## Genetic and Genomic Resources of Vigna and Phaseolus species



## Genetic and Genomic Resources of Vigna and Phaseolus species





### Contact>

This page lists the members of team that has designed, developed and maintaining this application.

It is not a credit pages; but a page that shows whose owns the responsibility of running the application.