

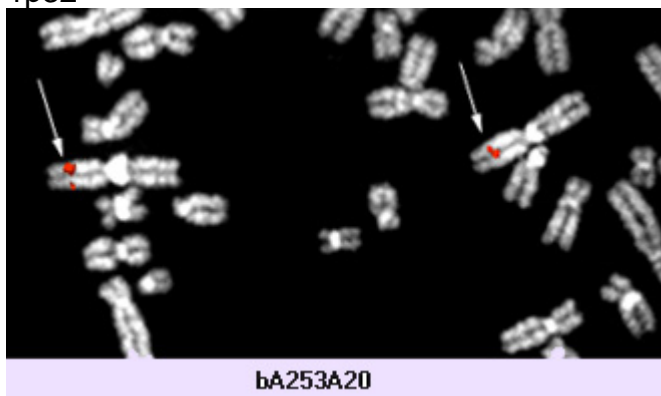
EPS15 (epidermal growth factor receptor pathway substrate 15)

Identity

Other names **AF1p (ALL1 fused gene from chromosome 1p)**
EPS15 (EGFR Pathway Substrate 15)
MLLT5 (Myeloid/Lymphoid Leukemia Translocated to, 5)

Hugo **EPS15**

Location 1p32



[AF1p \(1p32\)](#) - Courtesy Mariano Rocchi, [Resources for Molecular Cytogenetics](#).
Laboratories willing to validate the probes are welcome : contact rocchi@biologia.uniba.it

DNA/RNA

Description coding sequence: CDS 93..2783

Transcription 4.4 kb mRNA

Protein

Description 896 amino acids; NH2 -- coiled-coil region -- DPF repeat -- COOH;
oligomerization properties

Expression wide

Localisation cytoplasmic

Function implicated in endocytosis; probable EGF receptor tyrosine kinase substrate.

Homology PAN1 (yeast); eps15R (human)

Implicated in

Entity t(1;11) (p32;q23)/ANLLL --> [MLL](#) - AF1p

Disease AMMOL

Abnormal N-term -- AT hook and DNA methyltransferase from MLL fused to almost all

Protein AF1p

External links

	Nomenclature	
Hugo	EPS15	
GDB	EPS15	
Entrez Gene	EPS15_2060 epidermal growth factor receptor pathway substrate 15	
	Cards	
Atlas	AF1pID11	
GeneCards	EPS15	
Ensembl	EPS15	
CancerGene	EPS15	
Genatlas	EPS15	
GeneLynx	EPS15	
eGenome	EPS15	
euGene	2060	
	Genomic and cartography	
GoldenPath	EPS15 - 1p32 chr1:51531956-51697016 - 1p32.3 (hg17-May_2004)	
Ensembl	EPS15 - 1p32.3 [CytoView]	
NCBI	Genes Cyto Gene Seq [Map View - NCBI]	
OMIM	Disease map [OMIM]	
HomoloGene	EPS15	
	Gene and transcription	
Genbank	AL110230 [SRS]	AL110230 [ENTREZ]
Genbank	AL671986 [SRS]	AL671986 [ENTREZ]
Genbank	AF052132 [SRS]	AF052132 [ENTREZ]
Genbank	AK090936 [SRS]	AK090936 [ENTREZ]
Genbank	AK129853 [SRS]	AK129853 [ENTREZ]
RefSeq	NM_001981 [SRS]	NM_001981 [ENTREZ]
RefSeq	NT_086582 [SRS]	NT_086582 [ENTREZ]
AceView	EPS15 AceView - NCBI	
TRASER	EPS15 Traser - Stanford	
Unigene	Hs.83722 [SRS]	Hs.83722 [NCBI] HS83722 [spliceNest]
	Protein : pattern, domain, 3D structure	
SwissProt	P42566 [SRS]	P42566 [EXPASY] P42566 [INTERPRO]
Prosite	PS00018 EF_HAND [SRS]	PS00018 EF_HAND [Expasy]
Prosite	PS50031 EH [SRS]	PS50031 EH [Expasy]
Prosite	PS50330 UIM [SRS]	PS50330 UIM [Expasy]
Interpro	IPR002048 EF-hand [SRS]	IPR002048 EF-hand [EBI]
Interpro	IPR010983 EF_Hand_like [SRS]	IPR010983 EF_Hand_like [EBI]
Interpro	IPR000261 EPS15_homology [SRS]	IPR000261 EPS15_homology [EBI]
Interpro	IPR003903 UIM [SRS]	IPR003903 UIM [EBI]
CluSTr	P42566	
Pfam	PF00036 efhand [SRS]	PF00036 efhand [Sanger] pfam00036 [NCBI-CDD]
Smart	SM00054 EFh [EMBL]	
Smart	SM00027 EH [EMBL]	
Smart	SM00726 UIM [EMBL]	
Blocks	P42566	
PDB	1C07 [SRS]	1C07 [PdbSum], 1C07 [IMB]
PDB	1EH2 [SRS]	1EH2 [PdbSum], 1EH2 [IMB]

[PDB](#) [1F8H](#) [SRS] [1F8H](#) [PdbSum], [1F8H](#) [IMB]
[PDB](#) [1FF1](#) [SRS] [1FF1](#) [PdbSum], [1FF1](#) [IMB]

Polymorphism : SNP, mutations, diseases

[OMIM](#) [600051](#) [map]

[GENECLINICS](#) [600051](#)

[SNP](#) [EPS15](#) [dbSNP-NCBI]

[SNP](#) [NM_001981](#) [SNP-NCI]

[SNP](#) [EPS15](#) [GeneSNPs - Utah] [EPS15](#) [SNP - CSHL] [EPS15](#) [HGBASE - SRS]

General knowledge

[Family Browser](#) [EPS15](#) [UCSC Family Browser]

[SOURCE](#) [NM_001981](#)

[SMD](#) [Hs.83722](#)

[SAGE](#) [Hs.83722](#)

[Amigo](#) [function|calcium ion binding](#)

[Amigo](#) [process|cell proliferation](#)

[Amigo](#) [component|coated pit](#)

[Amigo](#) [process|epidermal growth factor receptor signaling pathway](#)

[Amigo](#) [function|receptor activity](#)

[Amigo](#) [process|vesicle organization and biogenesis](#)

[BIOCARTA](#) [Endocytotic role of NDK, Phosphins and Dynamin](#)

[PubGene](#) [EPS15](#)

Other databases

Probes

[Probe](#) [Cancer Cytogenetics \(Bari\)](#)

[Probe](#) [EPS15 Related clones \(RZPD - Berlin\)](#)

PubMed

[PubMed](#) [12 Pubmed reference\(s\) in LocusLink](#)

Bibliography

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Fazioli F, Minichiello L, Matoskova B, Wong W T and Di Fiore P P,

Mol Cell Biol,1993 Sep; 13(9): 5814-5828.

Medline [93361014](#)

A novel gene, AF-1p, fused to HRX in t(1;11)(p32;q23), is not related to AF-4, AF-9 nor ENL.

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Medline [94181254](#)

Molecular basis of 11q23 rearrangements in hematopoietic malignant proliferations.

Bernard OA and Berger R.

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Medline [95352544](#)

11q23 rearrangements in acute leukemia

Rubnitz JE, et al

Leukemia. 1996 Jan;10(1):74-82. Review
Medline [96145214](#)

Eps15 is a component of clathrin-coated pits and vesicles and is located at the rim of coated pits.

Tebar F, Sorkina T, Sorkin A, Ericsson M and Kirchhausen T.
J Biol Chem, 1996 Nov 15; 271(46): 28727-28730.
Medline [97067107](#)

Chromosome abnormalities in leukaemia: the 11q23 paradigm

Young BD and Saha V
Cancer Surv. 1996;28:225-45. Review
Medline [97131386](#)

Pan1p, yeast eps15, functions as a multivalent adaptor that coordinates protein-protein interactions essential for endocytosis

Wendland B, et al
J Cell Biol. 1998 Apr 6;141(1):71-84
Medline [98198468](#)

[REVIEW articles](#) *automatic search in PubMed*

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[BiblioGene - INIST](#)

Contributor(s)

Written 04-1998 Olivier Bernard

Citation

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URL : <http://www.infobiogen.fr/services/chromcancer/Genes/AF1pID11.html>

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