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WIBG Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10709a

Product Information

Application	IHC-P, WB, E
Primary Accession	Q9BRP8
Other Accession	Q8CHP5, A6QPH1, NP_115721.1
Reactivity	Human
Predicted	Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB28144
Calculated MW	22656
Antigen Region	12-40

Additional Information

Gene ID	84305
Other Names	Partner of Y14 and mago, Protein wibg homolog, WIBG, PYM
Target/Specificity	This WIBG antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 12-40 amino acids from the N-terminal region of human WIBG.
Dilution	IHC-P~~1:100~500 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	WIBG Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PYM1 (HGNC:30258)
Synonyms	PYM, WIBG
Function	Key regulator of the exon junction complex (EJC), a multiprotein complex

that associates immediately upstream of the exon- exon junction on mRNAs and serves as a positional landmark for the intron exon structure of genes and directs post-transcriptional processes in the cytoplasm such as mRNA export, nonsense-mediated mRNA decay (NMD) or translation. Acts as an EJC disassembly factor, allowing translation-dependent EJC removal and recycling by disrupting mature EJC from spliced mRNAs. Its association with the 40S ribosomal subunit probably prevents a translation-independent disassembly of the EJC from spliced mRNAs, by restricting its activity to mRNAs that have been translated. Interferes with NMD and enhances translation of spliced mRNAs, probably by antagonizing EJC functions. May bind RNA; the relevance of RNA-binding remains unclear in vivo, RNA-binding was detected by PubMed:14968132, while PubMed:19410547 did not detect RNA- binding activity independently of the EJC.

Cellular Location

Cytoplasm. Nucleus, nucleolus. Nucleus, nucleoplasm. Note=Shuttles between the nucleus and the cytoplasm (PubMed:14968132). Nuclear export is mediated by XPO1/CRM1 (PubMed:14968132).

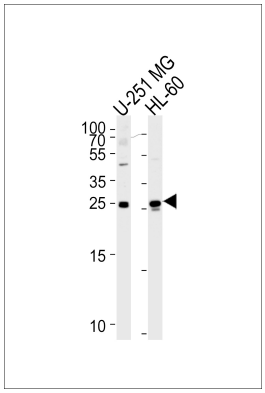
Background

Key regulator of the exon junction complex (EJC), a multiprotein complex that associates immediately upstream of the exon-exon junction on mRNAs and serves as a positional landmarks for the intron exon structure of genes and directs post-transcriptional processes in the cytoplasm such as mRNA export, nonsense-mediated mRNA decay (NMD) or translation. Acts as a EJC disassembly factor, allowing translation-dependent EJC removal and recycling by disrupting mature EJC from spliced mRNAs. Its association with the 40S ribosomal subunit probably prevents a translation-independent disassembly of the EJC from spliced mRNAs, by restricting its activity to mRNAs that have been translated. Interferes with NMD and enhances translation of spliced mRNAs, probably by antagonizing EJC functions. May bind RNA; the relevance of RNA-binding remains unclear in vivo, RNA-binding was detected by PubMed:14968132, while PubMed:19410547 did not detect RNA-binding activity independently of the EJC.

References

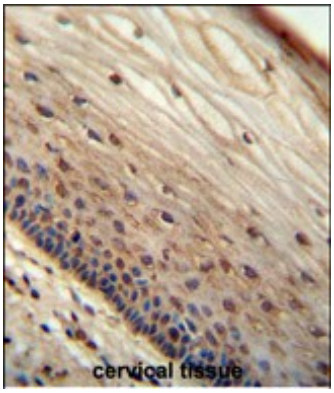
Gehring, N.H., et al. Cell 137(3):536-548(2009)
Diem, M.D., et al. Nat. Struct. Mol. Biol. 14(12):1173-1179(2007)
Forler, D., et al. Nat. Biotechnol. 21(1):89-92(2003)
Gatfield, D., et al. J. Cell Biol. 159(4):579-588(2002)

Images



Western blot analysis of lysates from U-251 MG, HL-60 cell line (from left to right), using WIBG Antibody (N-term)(Cat. #AP10709a). AP10709a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.

WIBG antibody (N-term) (Cat. #AP10709a) immunohistochemistry analysis in formalin fixed and paraffin embedded human cervical tissue followed by



peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the WIBG antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.