

PXF Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP2421a

Specification

PXF Antibody (N-term) Blocking Peptide - Product Information

Primary Accession
Other Accession

[P40855](#)
[NP_001124511](#)

PXF Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 5824

Other Names

Peroxisomal biogenesis factor 19, 33 kDa housekeeping protein, Peroxin-19, Peroxisomal farnesylated protein, PEX19, HK33, PXF

Target/Specificity

The synthetic peptide sequence used to generate the antibody AP2421a was selected from the N-term region of human PXF . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PXF Antibody (N-term) Blocking Peptide - Protein Information

Name PEX19 ([HGNC:9713](#))

Synonyms HK33, PXF

Function

Necessary for early peroxisomal biogenesis. Acts both as a cytosolic chaperone and as an import receptor for peroxisomal membrane proteins (PMPs). Binds and stabilizes newly synthesized PMPs in the cytoplasm by interacting with their hydrophobic membrane-spanning domains, and targets them to the peroxisome membrane by binding to the integral membrane protein PEX3. Excludes CDKN2A from the nucleus and prevents its interaction with MDM2, which results in active degradation of TP53.

Cellular Location

Cytoplasm. Peroxisome membrane; Lipid-anchor; Cytoplasmic side. Note=Mainly cytoplasmic. Some fraction membrane-associated to the outer surface of peroxisomes.

Tissue Location

Ubiquitously expressed. Isoform 1 is strongly predominant in all tissues except in utero where isoform 2 is the main form.

PXF Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

PXF Antibody (N-term) Blocking Peptide - Images**PXF Antibody (N-term) Blocking Peptide - Background**

The covalent attachment of prenyl lipids, such as farnesyl or geranylgeranyl groups, by specific transferases is indispensable for the cellular sorting of many proteins. Peroxisomal farnesylated protein or PXF, which localizes to the outer surface of peroxisomes, is 93% identical in sequence to human HK33, a predicted 299 amino acid protein. The ubiquitous transcription of the HK33 gene indicates its role as a housekeeping gene. At least four variants of HK33 have been identified, two of which are farnesylated in vitro. Evidence suggests that PXF is involved in the process of peroxisomal biogenesis or assembly. Complementation group J (CG-J) from patients with a peroxisome biogenesis disorder (PBD), such as Zellweger syndrome, has been identified. Human PXF expression restored peroxisomal protein import in fibroblasts from a patient with Zellweger syndrome of CG-J. This patient was homozygous for a point mutation in PXF. These results indicate that PXF is the causative gene for CG-J PBD and suggests that the C-terminal part of the PXF protein, including the CAAX homology box, is required for function.

PXF Antibody (N-term) Blocking Peptide - References

Mayerhofer, P.U., et al., Biochem. Biophys. Res. Commun. 291(5):1180-1186 (2002).Gloeckner, C.J., et al., Biochem. Biophys. Res. Commun. 271(1):144-150 (2000).Matsuzono, Y., et al., Proc. Natl. Acad. Sci. U.S.A. 96(5):2116-2121 (1999).Kammerer, S., et al., Genomics 45(1):200-210 (1997).Braun, A., et al., Gene 146(2):291-295 (1994).