

PHAX Antibody (C-term) Blocking peptide Synthetic peptide

Catalog # BP12834b

Specification

PHAX Antibody (C-term) Blocking peptide - Product Information

Primary Accession

<u>Q9H814</u>

PHAX Antibody (C-term) Blocking peptide - Additional Information

Gene ID 51808

Other Names

Phosphorylated adapter RNA export protein, RNA U small nuclear RNA export adapter protein, PHAX, RNUXA

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.

PHAX Antibody (C-term) Blocking peptide - Protein Information

Name PHAX

Synonyms RNUXA

Function

A phosphoprotein adapter involved in the XPO1-mediated U snRNA export from the nucleus. Bridge components required for U snRNA export, the cap binding complex (CBC)-bound snRNA on the one hand and the GTPase Ran in its active GTP-bound form together with the export receptor XPO1 on the other. Its phosphorylation in the nucleus is required for U snRNA export complex assembly and export, while its dephosphorylation in the cytoplasm causes export complex disassembly. It is recycled back to the nucleus via the importin alpha/beta heterodimeric import receptor. The directionality of nuclear export is thought to be conferred by an asymmetric distribution of the GTP- and GDP-bound forms of Ran between the cytoplasm and nucleus. Its compartmentalized phosphorylation cycle may also contribute to the directionality of export. Binds strongly to m7G-capped U1 and U5 small nuclear RNAs (snRNAs) in a sequence-unspecific manner and phosphorylation-independent manner (By similarity). Also plays a role in the biogenesis of U3 small nucleolar RNA (snoRNA). Involved in the U3 snoRNA transport from nucleoplasm to Cajal bodies. Binds strongly to m7G-capped U3, U8 and U13 precursor snoRNAs and weakly to trimethylated (TMG)-capped U3, U8 and U13 snoRNAs. Binds also to telomerase RNA.



Cellular Location

Nucleus, nucleoplasm. Nucleus, Cajal body. Cytoplasm. Note=Located in the nucleoplasm and Cajal bodies. Shuttles between the nucleus and the cytoplasm. Shuttles between the nucleoplasm and Cajal bodies.

PHAX Antibody (C-term) Blocking peptide - Protocols

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

<u>Blocking Peptides</u>

PHAX Antibody (C-term) Blocking peptide - Images

PHAX Antibody (C-term) Blocking peptide - Background

A phosphoprotein adapter involved in the XPO1-mediated U snRNA export from the nucleus. Bridge components required for U snRNA export, the cap binding complex (CBC)-bound snRNA on the one hand and the GTPase Ran in its active GTP-bound form together with the export receptor XPO1 on the other. Its phosphorylation in the nucleus is required for U snRNA export complex assembly and export, while its dephosphorylation in the cytoplasm causes export complex disassembly. It is recycled back to the nucleus via the importin alpha/beta heterodimeric import receptor. The directionality of nuclear export is thought to be conferred by an asymmetric distribution of the GTP-and GDP-bound forms of Ran between the cytoplasm and nucleus. Its compartmentalized phosphorylation cycle may also contribute to the directionality of export. Binds strongly to m7G-capped U1 and U5 small nuclear RNAs (snRNAs) in a sequence-unspecific manner and phosphorylation-independent manner (By similarity). Plays also a role in the biogenesis of U3 small nucleolar RNA (snoRNA). Involved in the U3 snoRNA transport from nucleoplasm to Cajal bodies. Binds strongly to m7G-capped U3, U8 and U13 precursor snoRNAs and weakly to trimethylated (TMG)-capped U3, U8 and U13 snoRNAs. Binds also to telomerase RNA.

PHAX Antibody (C-term) Blocking peptide - References

Mourao, A., et al. RNA 16(6):1205-1216(2010)Matsuoka, S., et al. Science 316(5828):1160-1166(2007)Lemm, I., et al. Mol. Biol. Cell 17(7):3221-3231(2006)Watkins, N.J., et al. Mol. Cell 16(5):789-798(2004)Boulon, S., et al. Mol. Cell 16(5):777-787(2004)