

SECISBP2 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14908c**Specification**

SECISBP2 Antibody (Center) - Product Information

Application	WB,E
Primary Accession	O96T21
Other Accession	O9OX72 , NP_076982.3 , Q3U1C4
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	95462
Antigen Region	501-530

SECISBP2 Antibody (Center) - Additional Information**Gene ID** 79048**Other Names**

Selenocysteine insertion sequence-binding protein 2, SECIS-binding protein 2, SECISBP2, SBP2

Target/Specificity

This SECISBP2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 501-530 amino acids from the Central region of human SECISBP2.

Dilution

WB~~1:1000

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

SECISBP2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

SECISBP2 Antibody (Center) - Protein Information**Name** SECISBP2 {ECO:0000303|PubMed:19004874, ECO:0000312|HGNC:HGNC:30972}**Function** mRNA-binding protein that binds to the SECIS (selenocysteine insertion sequence)

element present in the 3'-UTR of mRNAs encoding selenoproteins and facilitates the incorporation of the rare amino acid selenocysteine (PubMed:[35709277](#)). Insertion of selenocysteine at UGA codons is mediated by SECISBP2 and EEFSEC: SECISBP2 (1) specifically binds the SECIS sequence once the 80S ribosome encounters an in-frame UGA codon and (2) contacts the RPS27A/eS31 of the 40S ribosome before ribosome stalling (PubMed:[35709277](#)). (3) GTP-bound EEFSEC then delivers selenocysteinyl-tRNA(Sec) to the 80S ribosome and adopts a preaccommodated state conformation (PubMed:[35709277](#)). (4) After GTP hydrolysis, EEFSEC dissociates from the assembly, selenocysteinyl- tRNA(Sec) accommodates, and peptide bond synthesis and selenoprotein elongation occur (PubMed:[35709277](#)).

Cellular Location

[Isoform 1]: Nucleus.

Tissue Location

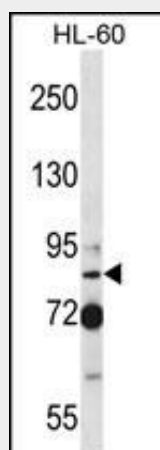
Expressed at high levels in testis.

SECISBP2 Antibody (Center) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SECISBP2 Antibody (Center) - Images



SECISBP2 Antibody (Center) (Cat. #AP14908c) western blot analysis in HL-60 cell line lysates (35ug/lane). This demonstrates the SECISBP2 antibody detected the SECISBP2 protein (arrow).

SECISBP2 Antibody (Center) - Background

The incorporation of selenocysteine into a protein requires the concerted action of an mRNA element called a sec insertion sequence (SECIS), a selenocysteine-specific translation elongation factor and a SECIS binding protein. With these elements

in place, a UGA codon can be decoded as selenocysteine. The gene described in this record encodes a nuclear protein that functions as a SECIS binding protein. Mutations in this gene have been associated with a reduction in activity of a specific thyroxine deiodinase, a selenocysteine-containing enzyme, and abnormal thyroid hormone metabolism.

SECISBP2 Antibody (Center) - References

Meplan, C., et al. Carcinogenesis 31(6):1074-1079(2010)
Papp, L.V., et al. Antioxid. Redox Signal. 12(7):797-808(2010)
Di Cosmo, C., et al. J. Clin. Endocrinol. Metab. 94(10):4003-4009(2009)
Olieric, V., et al. Biochimie 91(8):1003-1009(2009)
Schomburg, L., et al. Thyroid 19(3):277-281(2009)