

HAX-1 (B-11): sc-166845

BACKGROUND

HAX-1 (HS1-associated protein X-1 or HS1-binding protein protein X-1), encodes a novel protein. HAX-1 has previously been shown to associate with HS1, a protein specifically expressed in cells of the hematopoietic lineage, and is thought to be involved in signal transduction in B cells and apoptosis. Though first identified as a protein that associates with HS1, recent data has also revealed interactions between HAX-1 and three disparate proteins; Polycystin-2 (derived from the PKD2 gene), a protein linked to polycystic kidney disease, Cortactin and EBNA-LP (Epstein-Barr virus nuclear antigen leader protein). Additionally, HAX-1 has been identified as a binding partner to the carboxy-terminus of the K15 protein of Kaposi's sarcoma-associated herpesvirus. K15 interacts with cellular HAX-1 *in vitro* and *in vivo*. Furthermore, HAX-1 co-localizes with K15 in the endoplasmic reticulum and mitochondria. Immunofluorescence experiments show that in most cells PKD2 and HAX-1 co-localize in the cell body, but in some cells PKD2 and HAX-1 also are sorted into cellular processes and lamellipodia. The HAX-1 gene is expressed ubiquitously among tissues. Its protein is localized mainly in mitochondria, but also in endoplasmic reticulum and the nuclear envelope of the cell.

REFERENCES

1. Suzuki, Y., et al. 1997. HAX-1, a novel intracellular protein, localized on mitochondria, directly associates with HS1, a substrate of Src family tyrosine kinases. *J. Immunol.* 158: 2736-2744.
2. Gallagher, A.R., et al. 2000. The polycystic kidney disease protein PKD2 interacts with HAX-1, a protein associated with the Actin cytoskeleton. *Proc. Natl. Acad. Sci. USA* 97: 4017-4022.

CHROMOSOMAL LOCATION

Genetic locus: HAX1 (human) mapping to 1q21.3.

SOURCE

HAX-1 (B-11) is a mouse monoclonal antibody raised against amino acids 1-279 representing full length HAX-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HAX-1 (B-11) is available conjugated to agarose (sc-166845 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166845 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166845 PE), fluorescein (sc-166845 FITC), Alexa Fluor® 488 (sc-166845 AF488), Alexa Fluor® 546 (sc-166845 AF546), Alexa Fluor® 594 (sc-166845 AF594) or Alexa Fluor® 647 (sc-166845 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166845 AF680) or Alexa Fluor® 790 (sc-166845 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

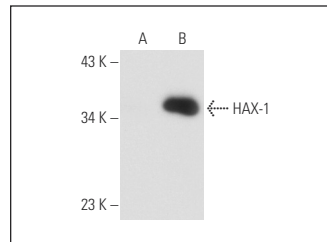
HAX-1 (B-11) is recommended for detection of HAX-1 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for HAX-1 siRNA (h): sc-43365, HAX-1 shRNA Plasmid (h): sc-43365-SH and HAX-1 shRNA (h) Lentiviral Particles: sc-43365-V.

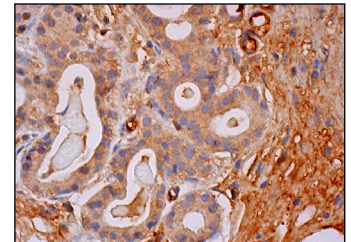
Molecular Weight of HAX-1: 35 kDa.

Positive Controls: HAX-1 (h): 293T Lysate: sc-113132, A-673 cell lysate: sc-2414 or HeLa whole cell lysate: sc-2200.

DATA



HAX-1 (B-11): sc-166845. Western blot analysis of HAX-1 expression in non-transfected: sc-117752 (A) and human HAX-1 transfected: sc-113132 (B) 293T whole cell lysates.



HAX-1 (B-11): sc-166845. Immunoperoxidase staining of formalin fixed, paraffin-embedded human salivary gland tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Li, X., et al. 2015. Expression and function of HAX-1 in human cutaneous squamous cell carcinoma. *J. Cancer* 6: 351-359.
2. Li, H., et al. 2016. KDM4B plays an important role in mitochondrial apoptosis by upregulating HAX1 expression in colorectal cancer. *Oncotarget* 7: 57866-57877.
3. Hu, G., et al. 2018. MiR-125b regulates the drug-resistance of breast cancer cells to doxorubicin by targeting HAX-1. *Oncol. Lett.* 15: 1621-1629.
4. Meng, L., et al. 2021. *Sanguisorba parviflora* (Maxim) Takeda alleviates cyclophosphamide-induced leukopenia via regulating the hematopoietic cell-specific protein 1-associated protein X-1 gene. *J. Clin. Pharm. Ther.* 46: 1334-1342.
5. Meng, L., et al. 2021. *Sanguisorba parviflora* (Maxim.) Takeda alleviates cyclophosphamide-induced leukopenia by regulating haematopoietic cell-specific protein 1-associated protein X-1 gene expression. *J. Clin. Pharm. Ther.* 46: 1373-1381.

RESEARCH USE

For research use only, not for use in diagnostic procedures.