SANTA CRUZ BIOTECHNOLOGY, INC.

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

- 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.
- 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 $\mu g\, lg G_1$ 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, **D0 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

- Li, X., et al. 2015. Expression and function of HAX-1 in human cutaneous squamous cell carcinoma. J. Cancer 6: 351-359.
- Li, H., et al. 2016. KDM4B plays an important role in mitochondrial apoptosis by upregulating HAX1 expression in colorectal cancer. Oncotarget 7: 57866-57877.
- 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.
- 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.
- 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.