

APS (C-20): sc-7223

BACKGROUND

APS (adapter molecule containing PH and SH2 domains), SH2-B and Lnk compose a family of adapter proteins, which contain a Pleckstrin homology (PH) domain, an SH2 domain and a tyrosine phosphorylation site. Stimulation of B cell receptor (BCR) or T cell receptor (TCR) results in the phosphorylation of the immunoreceptor tyrosine-based activation motif (ITAM) of BCR, TCR and several substrates. APS, SH2-B and Lnk may bind to the ITAM domain of BCR and TCR. Lnk is tyrosine phosphorylated in response to TCR stimulation and APS has been shown to be tyrosine phosphorylated in response to BCR stimulation.

REFERENCES

1. Osborne, M.A., Dalton, S. and Kochan, J.P. 1995. The yeast system—genetic detection of trans-phosphorylated ITAM-SH2-interactions. *Biotechnology* 13: 1474-1478.
2. Huang, X., et al. 1995. Cloning and characterization of Lnk, a signal transduction protein that links T-cell receptor activation signal to phospholipase $\text{C}\gamma 1$, GRB2, and phosphatidylinositol 3-kinase. *Proc. Natl. Acad. Sci. USA* 92: 11618-11622.
3. Daeron, M., et al. 1995. The same tyrosine-based inhibition motif, in the intracytoplasmic domain of $\text{Fc}\gamma\text{RIIb}$, regulates negatively BCR-, TCR-, and FcR-dependent cell activation. *Immunity* 3: 635-646.

CHROMOSOMAL LOCATION

Genetic locus: SH2B2 (human) mapping to 7q22.

SOURCE

APS (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of APS of human origin.

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-7223 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

APS (C-20) is recommended for detection of APS of human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for APS siRNA (h): sc-29710, APS shRNA Plasmid (h): sc-29710-SH and APS shRNA (h) Lentiviral Particles: sc-29710-V.

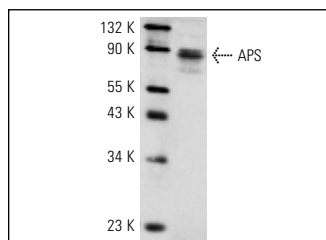
Molecular Weight of APS: 89 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



APS (C-20): sc-7223. Western blot analysis of APS expression in BJAB whole cell lysate.

SELECT PRODUCT CITATIONS

1. Barres, R., et al. 2005. The interaction between the adaptor protein APS and Enigma is involved in Actin organisation. *Exp. Cell. Res.* 308: 334-344.
2. Katsanakis, K., et al. 2005. Cross-talk between the two divergent Insulin signaling pathways is revealed by the protein kinase B (Akt)-mediated phosphorylation of adapter protein APS on serine 588. *J. Biol. Chem.* 280: 37827-37832.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.