SANTA CRUZ BIOTECHNOLOGY, INC.

STAP-2 (h): 293 Lysate: sc-110839

BACKGROUND

Protein kinases comprise a large group of encoded factors that regulate cellular processes by catalyzing the transfer of a phosphate group to a hydroxyl acceptor in serine, threonine or tyrosine residues. Kinases are capable of influencing the oncogenic potential of cell sytems at the level of oncoprotein or tumor suppressor protein phosphorylation states. STAP-2 is a protein that contains a pleckstrin homology (PH) domain and an SH2 domain, and associates with BRK. BRK (breast tumor kinase, Sik) is a 451 amino acid, nonreceptor protein-tyrosine kinase that is overexpressed in breast tumors and metastatic melanoma cell lines. Similar to the Src family of intracellular kinses, BRK is comprised of an SH3 domain, an SH2 domain, and a catalytic domain. STAP-2 is susceptiple to tyrosine phosphorylation and may be invovled in tyrosine kinase-mediated signaling cascades, whose aberrant function may lead to metastis.

REFERENCES

1. Hunter, T. 1995. Protein kinases and phosphatases: the yin and yang of protein phosphorylation and signaling. Cell 80: 225-236.
2. Vasioukhin, V., et al. 1997. A role for the epithelial-cell-specific tyrosine kinase Sik during keratinocyte differentiation. Proc. Natl. Acad. Sci. USA 94: 14477-14482.
3. Mitchell, P.J., et al. 1997. Characterisation and chromosome mapping of the human non receptor tyrosine kinase gene, BRK. Oncogene 15: 1497-1502.
4. Hunter, T. 2000. Signaling—2000 and beyond. Cell 100: 113-127.
5. Mitchell, P.J., et al. 2000. A novel adaptor-like protein which is a substrate for the non-receptor tyrosine kinase, BRK. Oncogene 19: 4273-4282.

CHROMOSOMAL LOCATION

Genetic locus: STAP2 (human) mapping to 19p13.3.

PRODUCT

STAP-2 (h): 293 Lysate represents a lysate of human STAP-2 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

STAP-2 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive STAP-2 antibodies. Recommended use: 10-20 µl per lane.

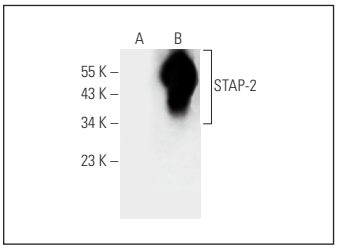
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

STAP-2 (E-4): sc-390886 is recommended as a positive control antibody for Western Blot analysis of enhanced human STAP-2 expression in STAP-2 transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



STAP-2 (E-4): sc-390886. Western blot analysis of STAP-2 expression in non-transfected: sc-110760 (**A**) and human STAP-2 transfected: sc-110839 (**B**) 293 whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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