SANTA CRUZ BIOTECHNOLOGY, INC.

ΙκΒ-δ (G-12): sc-135483



BACKGROUND

IκB-δ (I-κ-B-δ), also known as NFKBID (nuclear factor of κ light polypeptide gene enhancer in B-cells inhibitor, δ), MGC11314, IKBNS or TA-NFKBH (T-cell activation NFKB-like protein), is a 313 amino acid protein that belongs to the NFκB inhibitor family. IκB-δ plays a role in the regulation of both inflammatory responses and cytokine, IL-2 and IL-6 expression via NFκB activity. Existing as three alternatively spliced isoforms, IκB-δ associates with RelB, NFκB p50 and NFκB p65 in nucleus, and is thought to assist in thymocyte selection in response to TCR induction. The gene encoding IκB-δ maps to human chromosome 19, which consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG families and Fc receptors (FcRs).

REFERENCES

- Olsen, A., Teglund, S., Nelson, D., Gordon, L., Copeland, A., Georgescu, A., Carrano, A. and Hammarström, S. 1994. Gene organization of the pregnancy-specific glycoprotein region on human chromosome 19: assembly and analysis of a 700-kb cosmid contig spanning the region. Genomics 23: 659-668.
- Wang, L., Lin, S.H., Wu, W.G., Kemp, B.L., Walsh, G.L., Hong, W.K. and Mao, L. 2000. C-CAM1, a candidate tumor suppressor gene, is abnormally expressed in primary lung cancers. Clin. Cancer Res. 6: 2988-2993.
- Trowsdale, J., Barten, R., Haude, A., Stewart, C.A., Beck, S. and Wilson, M.J. 2001. The genomic context of natural killer receptor extended gene families. Immunol. Rev. 181: 20-38.
- 4. Le Meur, N., Martin, C., Saugier-Veber, P., Joly, G., Lemoine, F., Moirot, H., Rossi, A., Bachy, B., Cabot, A., Joly, P. and Frebourg, T. 2004. Complete germline deletion of the STK11 gene in a family with Peutz-Jeghers syndrome. Eur. J. Hum. Genet. 12: 415-418.
- 5. Leeb, T. and Müller, M. 2004. Comparative human-mouse-rat sequence analysis of the ICAM gene cluster on HSA 19p13.2 and a 185-kb porcine region from SSC 2q. Gene 343: 239-244.
- Mao, M., Biery, M.C., Kobayashi, S.V., Ward, T., Schimmack, G., Burchard, J., Schelter, J.M., Dai, H., He, Y.D. and Linsley, P.S. 2004. T lymphocyte activation gene identification by coregulated expression on DNA microarrays. Genomics 83: 989-999.
- Barrow, A.D. and Trowsdale, J. 2008. The extended human leukocyte receptor complex: diverse ways of modulating immune responses. Immunol. Rev. 224: 98-123.

CHROMOSOMAL LOCATION

Genetic locus: NFKBID (human) mapping to 19q13.12; Nfkbid (mouse) mapping to 7 B1.

RESEARCH USE

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

SOURCE

 $I\kappa B-\delta$ (G-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of $I\kappa B-\delta$ of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-135483 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-135483 X, 200 μ g/0.1 ml.

APPLICATIONS

 $I\kappa$ B-δ (G-12) is recommended for detection of $I\kappa$ B-δ isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with $I\kappa$ B-δ isoform 3.

 $I\kappa$ B- δ (G-12) is also recommended for detection of $I\kappa$ B- δ isoforms 1 and 2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for I κ B- δ siRNA (h): sc-97928, I κ B- δ siRNA (m): sc-155907, I κ B- δ shRNA Plasmid (h): sc-97928-SH, I κ B- δ shRNA Plasmid (m): sc-155907-SH, I κ B- δ shRNA (h)Lentiviral Particles: sc-97928-V and I κ B- δ shRNA (m) Lentiviral Particles: sc-155907-V.

 $I\kappa B\text{-}\delta$ (G-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of IκB-δ isoforms: 33/50/16 kDa.

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) Immunofluo-rescence: 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.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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