SANTA CRUZ BIOTECHNOLOGY, INC.

Bek (C-8): sc-6930

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Acidic and basic fibroblast growth factors (FGFs) are members of a family of multifunctional polypeptide growth factors that stimulate proliferation of cells of mesenchymal, epithelial and neuroectodermal origin. Like other growth factors, FGFs act by binding and activating specific cell surface receptors. These include the Flg receptor or FGFR-1, the Bek receptor (or FGFR-2), FGFR-3, FGFR-4, FGFR-5 and FGFR-6. These receptors usually contain an extracellular ligand-binding region containing three immunoglobulin-like domains, a transmembrane domain and a cytoplasmic tyrosine kinase domain. The gene encoding human Bek (also designated K-sam) maps to chromosome 10q26.13 and is alternatively spliced to produce several isoforms. Heterogeneous mutations in Bek are associated with a range of craniosynostosis syndromes including Pfeiffer syndrome, Crouzon syndrome, Jackson-Weiss syndrome and Apert syndrome.

REFERENCES

1. Rifkin, D.B. and Moscatelli, D. 1989. Recent developments in the cell biology of fibroblast growth factor. J. Cell Biol. 109: 1-6.
2. Dionne, C.A., et al. 1990. Cloning and expression of two distinct high-affinity receptors cross-reacting with acidic and basic fibroblast growth factors. EMBO J. 9: 2685-2692.

CHROMOSOMAL LOCATION

Genetic locus: FGFR2 (human) mapping to 10q26.13; Fgfr2 (mouse) mapping to 7 F3.

SOURCE

Bek (C-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 795-821 at the C-terminus of Bek receptor (FGFR-2 or KGFR) of human origin (identical to corresponding mouse sequence).

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Bek (C-8) is available conjugated to agarose (sc-6930 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-6930 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-6930 PE), fluorescein (sc-6930 FITC), Alexa Fluor® 488 (sc-6930 AF488), Alexa Fluor® 546 (sc-6930 AF546), Alexa Fluor® 594 (sc-6930 AF594) or Alexa Fluor® 647 (sc-6930 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-6930 AF680) or Alexa Fluor® 790 (sc-6930 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-6930 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

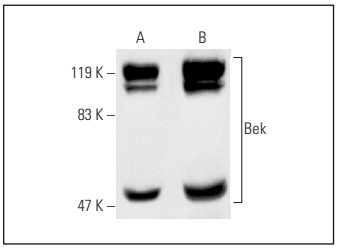
Bek (C-8) is recommended for detection of Bek of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), 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 Bek siRNA (h): sc-29218, Bek siRNA (m): sc-29799, Bek siRNA (r): sc-270078, Bek shRNA Plasmid (h): sc-29218-SH, Bek shRNA Plasmid (m): sc-29799-SH, Bek shRNA Plasmid (r): sc-270078-SH, Bek shRNA (h) Lentiviral Particles: sc-29218-V, Bek shRNA (m) Lentiviral Particles: sc-29799-V and Bek shRNA (r) Lentiviral Particles: sc-270078-V.

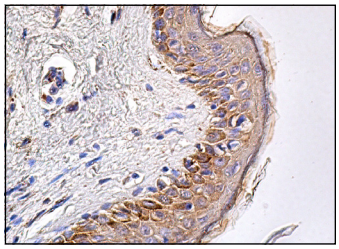
Molecular Weight of Bek monomer: 110/120 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

DATA



Western blot analysis of Bek transfected NIH/3T3 cells (**A**,**B**). Antibodies tested include Bek (C-8): sc-6930 (**A**) and Bek (C-17): sc-122 (**B**).



Bek (C-8): sc-6930. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of epidermal cells.

SELECT PRODUCT CITATIONS

1. Capone, A., et al. 2000. Up-modulation of the expression of functional keratinocyte growth factor receptors induced by high cell density in the human keratinocyte HaCaT cell line. Cell Growth Differ. 11: 607-614.
2. Yang, W., et al. 2017. Exploring the mechanism of WWOX growth inhibitory effects on oral squamous cell carcinoma. Oncol. Lett. 13: 3198-3204.
3. Liu, L., et al. 2018. The LIS1/NDE1 complex is essential for FGF signaling by regulating FGF receptor intracellular trafficking. Cell Rep. 22: 3277-3291.
4. Mori, M., et al. 2019. Generation of functional lungs via conditional blastocyst complementation using pluripotent stem cells. Nat. Med. 25: 1691-1698.
5. Chew, N.J., et al. 2020. FGFR3 signaling and function in triple negative breast cancer. Cell Commun. Signal. 18: 13.
6. Ko, J., et al. 2021. Characterization of FGFR signaling in prostate cancer stem cells and inhibition via TKI treatment. Oncotarget 12: 22-36.

RESEARCH USE

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