SANTA CRUZ BIOTECHNOLOGY, INC.

IGF-IRβ (F-1): sc-390130

BACKGROUND
Receptor tyrosine kinases (RTKs) are transmembrane molecular scaffolds that influence cellular processes including the cell cycle, cell migration, cell metabolism, cell survival, proliferation and differentiation. Insulin-like growth factor-I receptor (IGF-IR) is an RTK that stimulates growth in many different cell types, blocks apoptosis, acts as an intermediate of many growth hormone responses and may stimulate the growth of some types of cancer. The IGF-IR cognate ligand Insulin-like growth factor-I (IGF-I) promotes association of IGF-IR with Shc, GR2B and Sos 1, which initiates Ras and ERK kinase cascades, thereby modifying transcription factor activity, such as activation of the Elk transcription factors. The modular phosphotyrosine binding (PTB) domains of Insulin receptor substrate (IRS)-1 and -2 can associate with active IGF-IR and initiate phosphatidylinositol 3-kinase-dependent downstream signals. The human IGF-IR gene maps to chromosome 15q26.3 and encodes a 1,376 amino acid precursor protein that cleaves into IGF-IR β subunit and IGF-IR α subunit. The IGF-IR β subunit is 97 kDa and the IGF-IR α subunit is 130 kDa. IND1024 downregulates aryl hydrocarbon receptor (AhR) expression in an IGF1R and IR-independent manner. Toxicol. Lett. 360: 62-70.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: IGF1R (human) mapping to 15q26.3; Igf1r (mouse) mapping to 7 D1.

SOURCE
IGF-IRβ (F-1) is a mouse monoclonal antibody raised against amino acids 741-800 of IGF-IRβ of human origin.

PRODUCT
Each vial contains 200 µg IgG2b kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

IGF-IRβ (F-1) is available conjugated to agarose (sc-390130 AC), 500 µg (sc-390130 HPR), 200 µg/ml for WB, IHC and ELISA; to either phycocerythrin (sc-390130 PE), fluorescein (sc-390130 FITC), Alexa Fluor® 488 (sc-390130 AF488), Alexa Fluor® 546 (sc-390130 AF546), Alexa Fluor® 594 (sc-390130 AF594) or Alexa Fluor® 647 (sc-390130 AF647), 200 µg/ml for WB (RGB), IF, IHC and FCM; and to either Alexa Fluor® 680 (sc-390130 AF680) or Alexa Fluor® 790 (sc-390130 AF790), 200 µg/ml for Near-Infrared (NIR) WB, IF and FCM. Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

APPLICATIONS
IGF-IRβ (F-1) is recommended for detection of IGF-IRβ of mouse, rat and 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 1:50-1:1500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).


Molecular Weight of pro-IGF-IR: 200 kDa.
Molecular Weight of IGF-IRβ α subunit: 130 kDa.
Molecular Weight of IGF-IRβ β subunit: 97 kDa.
Positive Controls: MCF7 whole cell lysate: sc-2206, A-431 whole cell lysate: sc-2201 or HeLa whole cell lysate: sc-2200.

DATA
IGF-IRβ (F-1): sc-390130. Western blot analysis of IGF-IRβ expression in A-431 (A), MCF7 (B), NIH/3T3 (C) and HeLa (D) whole cell lysates.

SELECT PRODUCT CITATIONS

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

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

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