SANTA CRUZ BIOTECHNOLOGY, INC.

Tyro3 (H-110): sc-20742

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Receptor tyrosine kinases (RTKs) represent an important class of transmembrane signaling molecules. Binding of the extracellular domain of a RTK to its cognate ligand leads to receptor dimerization and the activation of the intrinsic tyrosine kinase activity of its intracellular kinase domain. The Axl/UFO subfamily of receptor tyrosine kinases is comprised of members Tyro3 (also referred to as BYK, Brt, Dtk, Rse, Tif or Sky), Axl (also called Tyro7 or UFO) and Mer (also called Nyk, c-Eyk and Tyro12). Members of this family have a common molecular structure which contains an N-terminal extracellular domain comprised of two Ig domains, two FNIII domains and a membrane spanning single helix followed by the cytoplasmic tyrosine kinase domain. These RTKs are functionally significant in spermatogenesis, immunoregulation and phagocytosis. Tyro3, Axl and Mer are widely expressed in adult tissues with their expression most abundant in brain, testis, lymphatic and vascular tissue. Tyro3 has been shown to undergo posttranslational modifications including both tyrosine phosphorylation as well as glycosylation. Two proteins, Protein S and Gas6, have been proposed as ligands for the Axl/UFO family of receptors. Both function as anti-coagulants through an unknown mechanism. Gas6 was cloned as a growth arrest-specific gene, while Protein S is an abundant serum protein which is thought to act by indirectly inhibiting proteases involved in the coagulation response.

REFERENCES

1. Janssen, J.W.G., et al. 1991. A novel putative tyrosine kinase receptor with oncogenic potential. Oncogene 6: 2113-2120.
2. Schlessinger, J., et al. 1992. Growth factor signaling by receptor tyrosine kinases. Neuron 9: 383-391.

CHROMOSOMAL LOCATION

Genetic locus: TYRO3 (human) mapping to 15q15.1; Tyro3 (mouse) mapping to 2 E5.

SOURCE

Tyro3 (H-110) is a rabbit polyclonal antibody raised against amino acids 781-890 mapping at the C-terminus of Tyro3 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.

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.

APPLICATIONS

Tyro3 (H-110) is recommended for detection of Tyro3 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).

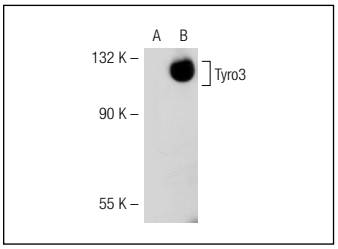
Tyro3 (H-110) is also recommended for detection of Tyro3 in additional species, including equine.

Suitable for use as control antibody for Tyro3 siRNA (h): sc-36438, Tyro3 siRNA (m): sc-36439, Tyro3 shRNA Plasmid (h): sc-36438-SH, Tyro3 shRNA Plasmid (m): sc-36439-SH, Tyro3 shRNA (h) Lentiviral Particles: sc-36438-V and Tyro3 shRNA (m) Lentiviral Particles: sc-36439-V.

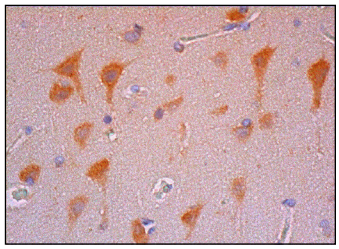
Molecular Weight of Tyro3: 120 kDa.

Positive Controls: Tyro3 (h): 293T Lysate: sc-116151, mouse brain extract: sc-2253 and Hep G2 cell lysate: sc-2227.

DATA



Tyro3 (H-110): sc-20742. Western blot analysis of Tyro3 expression in non-transfected: sc-117752 (**A**) and human Tyro3 transfected: sc-116151 (**B**) 293T whole cell lysates.



Tyro3 (H-110): sc-20742. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebral cortex tissue showing cytoplasmic staining of neuronal cells.

SELECT PRODUCT CITATIONS

1. Zheng, Y., et al. 2012. Involvement of receptor tyrosine kinase Tyro3 in amyloidogenic APP processing and β-amyloid deposition in Alzheimer's disease models. PLoS ONE 7: e39035.

MONOS Satisfaction Guaranteed

Try **Tyro3 (A-7): sc-166359** or **Tyro3 (B-4): sc-166360**, our highly recommended monoclonal alternatives to Tyro3 (H-110).