

# Tyros3 (N-18): sc-1094

## 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 contain an N-terminal extracellular domain comprised of two Ig domains, two FNIII domains, 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 post-translational 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

Tyros3 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-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.

Blocking peptide available for competition studies, sc-1094 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Tyros3 (N-18) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Tyros3 (N-18) is also recommended for detection of Tyro3 in additional species, including equine, canine, bovine and porcine.

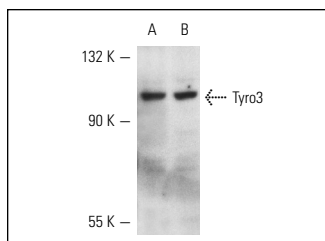
Suitable for use as control antibody for Tyro3 siRNA (h): sc-36438, Tyro3 siRNA (m): sc-36439, Tyro3 shRNA Plasmid (h): sc-36438-SH, Tyro3 shRNA Plasmid (m): sc-36439-SH, Tyro3 shRNA (h) Lentiviral Particles: sc-36438-V and Tyro3 shRNA (m) Lentiviral Particles: sc-36439-V.

Molecular Weight of Tyro3: 120 kDa.

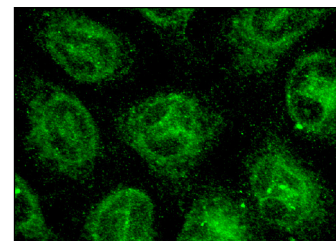
## RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: 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.

## DATA



Tyros3 (N-18): sc-1094. Western blot analysis of Tyro3 expression in Hep G2 (A) and MCF7 (B) whole cell lysates.



Tyros3 (N-18): sc-1094. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane and cytoplasmic localization.

## SELECT PRODUCT CITATIONS

- Islam, S., et al. 2001. Expression profile of protein tyrosine kinase genes in human osteoarthritis chondrocytes. *Osteoarthr. Cartil.* 8: 684-693.
- Rowe, A., et al. 2008. Phorbol ester enhances KAI1 transcription by recruiting Tip60/Pontin complexes. *Neoplasia* 10: 1421-1432.
- Gely-Pernot, A., et al. 2012. An endogenous vitamin K-dependent mechanism regulates cell proliferation in the brain subventricular stem cell niche. *Stem Cells* 30: 719-731.
- Yu, W., et al. 2014. Estrogen promotes Leydig cell engulfment by macrophages in male infertility. *J. Clin. Invest.* 124: 2709-2721.

## 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.

**MONOS**  
Satisfaction  
Guaranteed

Try **Tyros3 (A-7): sc-166359** or **Tyros3 (B-4): sc-166360**, our highly recommended monoclonal alternatives to Tyros3 (N-18).