**BACKGROUND**

Protein tyrosine phosphatases, or PTPs, are type I transmembrane proteins, membrane-associated proteins or proteins localized in nuclei. Examples of transmembrane PTPs are LAR, PTPα, PTPβ, PTPγ, PTPδ, PTPε, PTPζ, PTPκ and PTPµ. Transmembrane PTPs play diverse roles during development and in adult tissues. Immunodepletion studies have suggested LAR to be a regulator of insulin receptor phosphorylation. Trio is a LAR-interacting protein that contains two functional guanine exchange factor (GEF) domains and a serine/threonine protein kinase (PSK) domain. One of the the Trio-GEF domains exhibits Rac-specific GEF activity while the other exhibits Rho-specific GEF activity. The carboxy-terminal PSK domain is most similar to the PSK domains of the CaMK family.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: TRIO (human) mapping to 5p15.2.

**SOURCE**

Trio (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Trio 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-6060 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as phycoerythrin conjugate for flow cytometry, sc-6060 PE, 100 tests.

Available as Alexa Fluor® 405 (sc-6060 AF405), Alexa Fluor® 488 (sc-6060 AF488) or Alexa Fluor® 647 (sc-6060 AF647) conjugates for flow cytometry or immunofluorescence; 100 µg/2 ml.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

**STORAGE**

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

**APPLICATIONS**

Trio (D-20) is recommended for detection of Trio of 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 flow cytometry (1 µg per 1 x 10⁶ cells).

Trio (D-20) is also recommended for detection of Trio in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Trio siRNA (h): sc-36724, Trio shRNA Plasmid (h): sc-36724-SH and Trio shRNA (h) Lentiviral Particles: sc-36724-V.

Molecular Weight of Trio: 358 kDa.

Positive Controls: WI 38 whole cell lysate: sc-364260 or HeLa whole cell lysate: sc-2200.

**DATA**

![Western blot analysis of Trio expression in WI-38](image1.png)

![Intracellular FCM analysis of fixed and permeabilized HeLa cells](image2.png)

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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