

TXA2R (L-16): sc-31262

BACKGROUND

Thromboxane A2 (TXA2), the major cyclooxygenase (COX) product of arachidonic acid, stimulates platelet aggregation and is a potent vasoconstrictor. TXA2R has been implicated in several processes in normal kidney physiology as well as in myocardial infarction, atherosclerosis and bronchial asthma. TXA2 mediates its effects through the TXA2 receptor (TXA2R), a G protein-coupled receptor that activates phospholipase C (PLC) to mobilize intracellular calcium stores. Alternatively, TXA2R activates the MAP kinase pathway in response to dibutyl cyclic AMP (dbcAMP). The human TXA2R gene maps to chromosome 19p13.3 and is alternatively spliced to produce proteins which differ in the carboxy-termini. TXA2R is expressed in platelets, endothelium, placenta, vascular smooth muscles and the renal cortex. Mutations in the gene encoding TXA2R lead to several bleeding disorders due to either impaired coupling between the receptor and PLC or impaired binding to TXA2. Also, the TXA2R protein may be involved in mediating renal damage in disease states, controlling the initiation and/or progression of labor in women, and providing therapeutic value for treatment of acute pancreatitis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TBXA2R (human) mapping to 19p13.3; Tbx2r (mouse) mapping to 10 C1.

SOURCE

TXA2R (L-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of TXA2R of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-31262 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TXA2R (L-16) is recommended for detection of TXA2R long and short isoforms of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

TXA2R (L-16) is also recommended for detection of TXA2R long and short isoforms in additional species, including bovine.

Suitable for use as control antibody for TXA2R siRNA (h): sc-40226, TXA2R siRNA (m): sc-154816, TXA2R shRNA Plasmid (h): sc-40226-SH, TXA2R shRNA Plasmid (m): sc-154816-SH, TXA2R shRNA (h) Lentiviral Particles: sc-40226-V and TXA2R shRNA (m) Lentiviral Particles: sc-154816-V.

Molecular Weight of TXA2R: 55/58 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) 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.

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.



Try **TXA2R (G-2): sc-515033**, our highly recommended monoclonal alternative to TXA2R (L-16).