IMPA1 (H-7): sc-374234

**BACKGROUND**

IMPA1, also known as Myo-inositol monophosphatase-1, is responsible for the procurement of inositol that is required for synthesis of phosphatidylinositol and polyphosphoinositides. IMPA1 exists as a homodimer and has been identified as the pharmacological target for lithium action in the brain. IMPA1 is the principal enzyme of the phosphatidyl inositol signaling pathway, and inhibition of inositol monophosphatase hydrolysis may underlie the anti-manic and anti-depressant actions of Li+. Studies indicate that a variation in the 277 codon coding region of the IMPA1 gene has not been observed in manic-depressive patients, therefore suggesting that polymorphisms or mutations in the noncoding regions of this gene may influence the lithium response in psychiatric patients.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: IMPA1 (human) mapping to 8q21.13; Impa1 (mouse) mapping to 3 A1.

**SOURCE**

IMPA1 (H-7) is a mouse monoclonal antibody raised against amino acids 1-85 mapping at the N-terminus of IMPA1 of human origin.

**PRODUCT**

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

IMPA1 (H-7) is available conjugated to agarose (sc-374234 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374234 HRP), 200 µg/ml, for WB, IHCIP and ELISA; to either phycoerythrin (sc-374234 PE), fluorescein (sc-374234 FITC), Alexa Fluor® 488 (sc-374234 AF488), Alexa Fluor® 546 (sc-374234 AF546), Alexa Fluor® 594 (sc-374234 AF594) or Alexa Fluor® 647 (sc-374234 AF647), 200 µg/ml, for WB (RGB), IF, IHCIP and FCM; and to either Alexa Fluor® 680 (sc-374234 AF680) or Alexa Fluor® 790 (sc-374234 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

IMPA1 (H-7) is recommended for detection of IMPA1 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 1:50-1:500), 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).

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

**DATA**

**SELECT PRODUCT CITATIONS**


**STORAGE**

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