BACKGROUND

Thiopurine S-methyltransferase (TPMT), also designated thiopurine methyltransferase, acts as a catalyst for the S-methylation of thiopurine drugs such as 6-mercaptopurine. TPMT, usually found as a monomer, is inhibited by S-adenosyl-L-homocysteine. It is a cytoplasmic protein belonging to the TPMT subfamily of the larger methyltransferase superfamily of proteins. TPMT activity varies among different ethnic groups, with a large majority of Caucasians having a high TPMT activity. A common genetic polymorphism controls the level of TPMT activity. The level of TPMT activity is associated with the variation in efficacy and toxicity of thiopurine drugs.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: TPMT (human) mapping to 6p22.3; Tpmt (mouse) mapping to 13 A5.

SOURCE

TPMT (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TPMT 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-47506 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TPMT (K-18) is recommended for detection of TPMT of human and, to a lesser extent, mouse and rat 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).

TPMT (K-18) is also recommended for detection of TPMT in additional species, including equine.

Suitable for use as control antibody for TPMT siRNA (h): sc-61701, TPMT siRNA (m): sc-61702, TPMT shRNA Plasmid (h): sc-61701-SH, TPMT shRNA Plasmid (m): sc-61702-SH, TPMT shRNA (h) Lentiviral Particles: sc-61701-V and TPMT shRNA Plasmid (m): sc-61702-SH.

Molecular Weight of TPMT: 32 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HEL 92.1.7 cell lysate: sc-2270 or TF-1 cell lysate: sc-2412.

DATA

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 TPMT (E-8): sc-374154, our highly recommended monoclonal alternative to TPMT (K-18).