

# HPRT (FL-218): sc-20975

## BACKGROUND

HPRT (hypoxanthine phosphoribosyltransferase 1), also known as HGPRT or HPRT1, is a 218 amino acid cytoplasmic protein that belongs to the purine/pyrimidine phosphoribosyltransferase family. Involved in purine metabolism, HPRT functions as a purine salvage enzyme that catalyzes the conversion of hypoxanthine and guanine to their respective mononucleotides (inosine monophosphate and guanosine monophosphate, respectively). HPRT exists as a homotetramer that can bind two magnesium ions as cofactors. Defects in the gene encoding HPRT are the cause of gout and Lesch-Nyhan syndrome (LNS), both of which are characterized by a partial or complete lack of HPRT enzymatic activity. While a partial loss of HPRT enzymatic activity results in a buildup of uric acid (gout), a total loss of enzymatic activity results in hyperuricaemia, mental retardation, choreoathetosis and compulsive self-mutilation, all of which are symptoms associated with LNS. The severity of these diseases suggests an essential role for HPRT in purine metabolism.

## CHROMOSOMAL LOCATION

Genetic locus: HPRT1 (human) mapping to Xq26.2; Hprt1 (mouse) mapping to X A5.

## SOURCE

HPRT (FL-218) is a rabbit polyclonal antibody raised against amino acids 1-218 representing full length HPRT 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.

## APPLICATIONS

HPRT (FL-218) is recommended for detection of HPRT 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).

HPRT (FL-218) is also recommended for detection of HPRT in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for HPRT siRNA (h): sc-40679, HPRT siRNA (m): sc-40680, HPRT shRNA Plasmid (h): sc-40679-SH, HPRT shRNA Plasmid (m): sc-40680-SH, HPRT shRNA (h) Lentiviral Particles: sc-40679-V and HPRT shRNA (m) Lentiviral Particles: sc-40680-V.

Molecular Weight of HPRT: 23 kDa.

Positive Controls: HPRT (m): 293T Lysate: sc-120892, Hep G2 cell lysate: sc-2227 or A549 cell lysate: sc-2413.

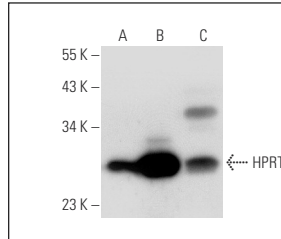
## STORAGE

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

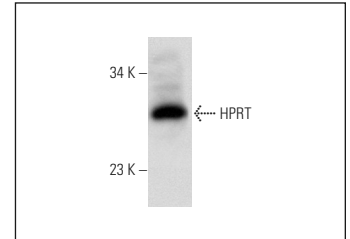
## RESEARCH USE

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

## DATA



HPRT (FL-218): sc-20975. Western blot analysis of HPRT expression in non-transfected 293T: sc-117752 (A), mouse HPRT transfected 293T: sc-120891 (B) and A549 (C) whole cell lysates.



HPRT (FL-218): sc-20975. Western blot analysis of HPRT expression in Hep G2 whole cell lysates.

## SELECT PRODUCT CITATIONS

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- Dobos, N., et al. 2012. The role of indoleamine 2,3-dioxygenase in a mouse model of neuroinflammation-induced depression. *J. Alzheimers Dis.* 28: 905-915.
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- Ortiz, O., et al. 2013. Reversible and tissue-specific activation of MAP kinase signaling by tamoxifen in Braf(V637)ER(T2) mice. *Genesis* 51: 448-455.
- Legnini, I., et al. 2014. A feedforward regulatory loop between HuR and the long noncoding RNA linc-MD1 controls early phases of myogenesis. *Mol. Cell* 53: 506-514.
- Zannoni, A., et al. 2014. Proteinase-activated receptor 2 expression in the intestinal tract of the horse. *Res. Vet. Sci.* 96: 464-471.
- Tian, T.V., et al. 2014. Identification of novel TMPRSS2:ERG mechanisms in prostate cancer metastasis: involvement of MMP9 and PLXNA2. *Oncogene* 33: 2204-2214.
- Doherty, D., et al. 2014. Vitamin D receptor agonist EB1089 is a potent regulator of prostatic "intracrine" metabolism. *Prostate* 74: 273-285.

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Try **HPRT (F-1): sc-376938** or **HPRT (B-11): sc-393901**, our highly recommended monoclonal alternatives to HPRT (FL-218).