

Thiopurine S-methyltransferase (TPMT) Recombinant Protein | TPMT recombinant protein

Recombinant Human Thiopurine S-methyltransferase (TPMT), partial

CATALOG # AAA81611	HOST E Coli or Yeast or Baculovirus or Mammalian Cell
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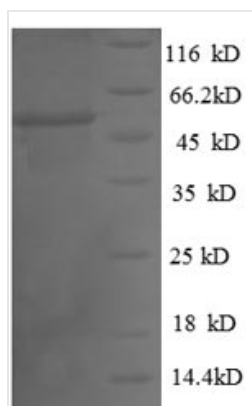
PRODUCT SYNONYMS

Thiopurine S-methyltransferase (TPMT); Recombinant Human Thiopurine S-methyltransferase (TPMT); partial; Thiopurine methyltransferase; TPMT recombinant protein

PRODUCT SPECIFICATIONS

Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE.
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Sequence Positions	4-244aa; Partial
Sequence	TRTSLDIEEY SDTEVQKNQV LTLEEWQDKW VNGKTAHQE QGHQLLKKHL DTFKLGKSGS RVFFPLCGKA VEMKWFADRG HSVVGVEISE LGIQEFFTEQ NLSYSEEPIT EIPGTVFKS SSGNISLYCC SIFDLPRNTI GKFDMIWDRG ALVAINPGDR KCYADTMFSL LGKKFYLLC VLSYDPTKHP GPPFYVPHAE IERLFGKICN IRCLEKVDAF EERHKSXWID CLFEKLYLLT E
Sequence Length	245
Preparation and Storage	Store at -20 degree C, for extended storage, conserve at -20 degree C or -80 degree C.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for TPMT recombinant protein	Catalyzes the S-methylation of thiopurine drugs such as 6-mercaptopurine.
Product Categories/Family for TPMT recombinant protein	Metabolism

References

Human thiopurine methyltransferase molecular cloning and expression of T84 colon carcinoma cell cDNA.Honchel R., Aksoy I.A., Szumlanski C., Wood T.C., Otterness D.M., Wieben E.D., Weinshilboum R.M.Mol. Pharmacol. 43:878-887(1993) Thiopurine methyltransferase pharmacogenetics. Cloning of human liver cDNA and a processed pseudogene on human chromosome 18q21.1.Lee D., Szumlanski C.L., Houtman J., Honchel R., Rojas K., Overhauser J., Wieben E.D., Weinshilboum R.M.Drug Metab. Dispos. 23:398-405(1995) Thiopurine methyltransferase pharmacogenetics human gene cloning and characterization of a common polymorphism.Szumlanski C., Otterness D., Her C., Lee D., Brandriff B., Kelsell D., Spurr N., Lennard L., Wieben E., Weinshilboum R.M.DNA Cell Biol. 15:17-30(1996) Promoter and intronic sequences of the human thiopurine S-methyltransferase (TPMT) gene isolated from a human PAC1 genomic library.Krynetski E.Y., Fessing M.Y., Yates C.R., Sun D., Schuetz J.D., Evans W.E.Pharm. Res. 14:1672-1678(1997) Human thiopurine methyltransferase pharmacogenetics gene sequence polymorphisms.Otterness D., Szumlanski C., Lennard L., Klemetsdal B., Aarbakke J., Park-Hah J.O., Iven H., Schmiegelow K., Branum E., O'Brien J., Weinshilboum R.M.Clin. Pharmacol. Ther. 62:60-73(1997) Genomic structure of thiopurine S-methyltransferase gene.Nakamura Y.The DNA sequence and analysis of human chromosome 6.Mungall A.J., Palmer S.A., Sims S.K., Edwards C.A., Ashurst J.L., Wilming L., Jones M.C., Horton R., Hunt S.E., Scott C.E., Gilbert J.G.R., Clamp M.E., Bethel G., Milne S., Ainscough R., Almeida J.P., Ambrose K.D., Andrews T.D., Ashwell R.I.S., Babbage A.K., Bagguley C.L., Bailey J., Banerjee R., Barker D.J., Barlow K.F., Bates K., Beare D.M., Beasley H., Beasley O., Bird C.P., Blakey S.E., Bray-Allen S., Brook J., Brown A.J., Brown J.Y., Burford D.C., Burrill W., Burton J., Carder C., Carter N.P., Chapman J.C., Clark S.Y., Clark G., Clee C.M., Clegg S., Cobley V., Collier R.E., Collins J.E., Colman L.K., Corby N.R., Coville G.J., Culley K.M., Dhami P., Davies J., Dunn M., Earthrowl M.E., Ellington A.E., Evans K.A., Faulkner L., Francis M.D., Frankish A., Frankland J., French L., Garner P., Garnett J., Ghori M.J., Gilby L.M., Gillson C.J., Glithero R.J., Grafham D.V., Grant M., Gribble S., Griffiths C., Griffiths M.N.D., Hall R., Halls K.S., Hammond S., Harley J.L., Hart E.A., Heath P.D., Heathcott R., Holmes S.J., Howden P.J., Howe K.L., Howell G.R., Huckle E., Humphray S.J., Humphries M.D., Hunt A.R., Johnson C.M., Joy A.A., Kay M., Keenan S.J., Kimberley A.M., King A., Laird G.K., Langford C., Lawlor S., Leongamornlert D.A., Leversha M., Lloyd C.R., Lloyd D.M., Loveland J.E., Lovell J., Martin S., Mashreghi-Mohammadi M., Maslen G.L., Matthews L., McCann O.T., McLaren S.J., McLay K., McMurray A., Moore M.J.F., Mullikin J.C., Niblett D., Nickerson T., Novik K.L., Oliver K., Overton-Larty E.K., Parker A., Patel R., Pearce A.V., Peck A.I., Phillimore B.J.C.T., Phillips S., Plumb R.W., Porter K.M., Ramsey Y., Ranby S.A., Rice C.M., Ross M.T., Searle S.M., Sehra H.K., Sheridan E., Skuce C.D., Smith S., Smith M., Spraggon L., Squares S.L., Steward C.A., Sycamore N., Tamlyn-Hall G., Tester J., Theaker A.J., Thomas D.W., Thorpe A., Tracey A., Tromans A., Tubby B., Wall M., Wallis J.M., West A.P., White S.S., Whitehead S.L., Whittaker H., Wild A., Willey D.J., Wilmer T.E., Wood J.M., Wray P.W., Wyatt J.C., Young L., Younger R.M., Bentley D.R., Coulson A., Durbin R.M., Hubbard T., Sulston J.E., Dunham I., Rogers J., Beck S.Nature 425:805-811(2003) Detection of known and new mutations in the thiopurine S-methyltransferase gene by single-strand conformation polymorphism analysis.Spire-Vayron de la Moureyre C., Debuysere H., Sabbagh N., Marez D., Vinner E., Chevalier E.D., Lo-Guidice J.-M., Broly F.3.0.CO;2-E>Hum. Mutat. 12:177-185(1998) Structural basis of substrate recognition in thiopurine s-methyltransferase.Peng Y., Feng Q., Wilk D., Adjei A.A., Salavaggione O.E., Weinshilboum R.M., Yee V.C.Biochemistry 47:6216-6225(2008) A quantitative atlas of mitotic phosphorylation.Dephoure N., Zhou C., Villen J., Beausoleil S.A., Bakalarski C.E., Elledge S.J., Gygi S.P.Proc. Natl. Acad. Sci. U.S.A. 105:10762-10767(2008) Large-scale phosphoproteome analysis of human liver tissue by enrichment and fractionation of phosphopeptides with strong anion exchange chromatography.Han G., Ye M., Zhou H., Jiang X., Feng S., Jiang X., Tian R., Wan D., Zou H., Gu J.Proteomics 8:1346-1361(2008) Quantitative phosphoproteomic analysis of T cell receptor signaling reveals system-wide modulation of protein-protein interactions.Mayya V., Lundgren D.H., Hwang S.-I., Rezaul K., Wu L., Eng J.K., Rodionov V., Han D.K.Sci. Signal. 2:RA46-RA46(2009) Lysine acetylation targets protein complexes and co-regulates major cellular functions.Choudhary C., Kumar C., Gnad F., Nielsen M.L., Rehman M., Walther T.C., Olsen J.V., Mann M.Science 325:834-840(2009) Initial characterization of the human central proteome.Burkard T.R., Planyavsky M., Kaupe I., Breitwieser F.P., Buerckstuehmer T., Bennett K.L., Superti-Furga G., Colinge J.BMC Syst. Biol. 5:17-17(2011) An enzyme assisted RP-RPLC approach for in-depth analysis of human liver phosphoproteome.Bian Y., Song C., Cheng K., Dong M., Wang F., Huang J., Sun D., Wang L., Ye M., Zou H.J. Proteomics 96:253-262(2014) Structural basis of allele variation of human thiopurine-S-methyltransferase.Wu H., Horton J.R., Battaile K., Allali-Hassani A., Martin F., Zeng H., Loppnau P., Vedadi M., Bochkarev A., Plotnikov A.N., Cheng X.Proteins 67:198-208(2007) A single point mutation leading to loss of catalytic activity in human thiopurine S-methyltransferase.Krynetski E.Y., Schuetz J.D., Galpin A.J., Pui C.-H., Relling M.V., Evans W.E.Proc. Natl. Acad. Sci. U.S.A. 92:949-953(1995) Thiopurine S-methyltransferase deficiency two nucleotide transitions define the most prevalent mutant allele associated with loss of catalytic activity in Caucasians.Tai H.-L., Krynetski E.Y., Yates C.R., Loennechen T., Fessing M.Y., Krynetskaia N.F., Evans W.E.Am. J. Hum. Genet. 58:694-702(1996) Azathioprine-induced severe pancytopenia due to a homozygous two-point mutation of the thiopurine methyltransferase gene in a patient with juvenile HLA-B27-associated spondylarthritis.Leipold G., Schuetz E., Haas J.P., Oellerich M.Arthritis Rheum. 40:1896-1898(1997) Enhanced proteolysis of thiopurine S-methyltransferase (TPMT) encoded by mutant alleles in humans (TPMT*3A, TPMT*2) mechanisms for the genetic polymorphism of TPMT activity.Tai H.-L., Krynetski E.Y., Schuetz E.G., Yanishevski Y., Evans W.E.Proc. Natl. Acad. Sci. U.S.A. 94:6444-6449(1997) Thiopurine methyltransferase alleles in British and Ghanaian populations.Ameyaw M.-M., Collie-Duguid E.S.R., Powrie R.H., Ofori-Adjei D., McLeod H.L.Hum. Mol. Genet. 8:367-370(1999) Polymorphism of the thiopurine S-methyltransferase gene in African-Americans.Hon Y.Y., Fessing M.Y., Pui C.-H., Relling M.V., Krynetski E.Y., Evans W.E.Hum. Mol. Genet. 8:371-376(1999) The frequency and distribution of thiopurine methyltransferase alleles in Caucasian and Asian populations.Collie-Duguid E.S.R., Pritchard S.C., Powrie R.H., Sludden J., Collier D.A., Li T., Molond H.L.Pharmacogenetics 9:37-42(1999) Genetic analysis of thiopurine methyltransferase polymorphism in a Japanese population.Hiratsuka M., Inoue T., Omori F., Agatsuma Y., Mizugaki M.Mutat. Res. 448:91-95(2000) Thiopurine S-methyltransferase pharmacogenetics variant allele functional and comparative

NCBI AND UNIPROT INFORMATION

NCBI GeneID	7172
UniProt Accession #	P51580; O14806; O15423; O15424; O15425; O15426; O15515; O15548; O43213; Q5VUK6; Q9UBE6; Q9UBT8
Molecular Weight	54.7 kDa
NCBI Official Synonym Full Names	thiopurine S-methyltransferase
NCBI Official Symbol	TPMT
NCBI Protein Information	thiopurine S-methyltransferase
UniProt Protein Name	Thiopurine S-methyltransferase
UniProt Gene Name	TPMT
UniProt Entry Name	TPMT_HUMAN

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