Active Recombinant Rat TGM2 Protein, His tagged

Cat. No. TGM2-035R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Rat TGM2 Protein with His tag was expressed in E.coli.
Species	Rat
Source	E.coli
Description	Enables several functions, including GTP binding activity; identical protein binding activity; and phospholipase binding activity. Involved in several processes, including isopeptide cross-linking via N6-(L-isoglutamyl)-L-lysine; positive regulation of canonical NF-kappaB signal transduction; and positive regulation of smooth muscle cell proliferation. Acts upstream of or within phospholipase C-activating G protein-coupled receptor signaling pathway. Located in cytosol and nucleus. Orthologous to human TGM2 (transglutaminase 2).
Form	White lyophilized solid
Bio-activity	> 2000 U/mg [Activity is determined by measuring the rate of fluorescence enhancement after His6-rrTG2-catalyzed monodansylcadaverine-incorporation into N,N-dimethylated casein according to Lorand et al., Anal. Biochem. 44 (221-231)]. 1 U is defined as the increase in fluorescence intensity of 1 a.u./min (measured on a Cary eclipse fluorescence spectrophotometer, Varian; λex = 332 nm, λem = 500 nm; band filter = 5 nm; detector strength = 600 V; temperature = 37 centigrade, assay volume = 1 mL)].
Molecular Mass	78 kDa

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Purity	> 95 %, visually by SDS-PAGE
Applications	His6-rrTG2 catalyzes acyl transfer reactions from glutamin residues in proteins or peptides to primary amines, e. g. the formation of ε-(γ-glutamyl) lysine bonds between proteins by transferring the acyl group of a peptide-bound glutamine residue to the primary amino group of a peptide-bound lysine residue. His6-rrTG2 may also be used for immunoprecipitation.
Storage	Store at -20 centigrade in working aliquots. Repeated freezing and thawing is not recommended. Delivery is possible at ambient temperature
Reconstitution	Add the volume of H2O the protein is lyophilized from to the vial of lyophilized powder. Rotate vial gently until solid dissolves. After reconstitution the solution should be stored frozen in working aliquots. Keep cooled on ice for short term storage.
Activation	Add 10 mM Ca2+ to activate His6-rrTG2.
CAS	80146-85-6
EC	EC 2.3.2.13

GENE INFORMATION

Gene Name	Tgm2 transglutaminase 2 [Rattus norvegicus (Norway rat)]
Official Symbol	TGM2
Synonyms	TGM2; transglutaminase 2, C polypeptide; protein-glutamine gamma-glutamyltransferase 2; tissue-type transglutaminase; TgaseII;
Gene ID	56083

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mRNA Refseq	NM_019386
Protein Refseq	NP_062259
UniProt ID	Q6P6R6

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