Recombinant UD15 protein (His tag)

Catalog Number	544570
Synonyms	UGT1A5; UDP-glucuronosyltransferase 1-5; UDPGT 1-5; UGT1*5; UGT1-05; UGT1.5; UDP-glucuronosyltransferase 1-E; UGT-1E; UGT1E
Species	Human
Expression System	E. coli
Accession	P35504
Molecular Weight	Predictes a molecular mass of 54.03 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 54 kDa band.

Product Information

Sequence Region	29-491
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 29-491 aa (P35504) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant human UDP-glucuronosyltransferase 1A5 (UGT1A5) fragment (residues 29-491) is a high-purity protein designed for structural and biochemical studies. This 463-amino acid fragment maintains key functional regions, offering researchers a stable and soluble tool to investigate glucuronidation mechanisms and drug metabolism pathways. UDP-glucuronosyltransferase 1A5 (UGT1A5) is a crucial phase II biotransformation enzyme that catalyzes the conjugation of lipophilic substrates with glucuronic acid, enhancing their water solubility for efficient excretion. This human enzyme plays a vital role in drug detoxification and elimination, including the glucuronidation of angiotensin receptor antagonists like zolarsatan. Isoform 1 demonstrates full catalytic activity, while isoform 2 acts as a negative regulator. The enzyme localizes to the endoplasmic reticulum membrane as a single-pass membrane protein, where it performs its essential metabolic functions in xenobiotic processing and endogenous compound clearance.