Recombinant DHB7 protein (His tag)

Catalog Number	544727
Synonyms	17-beta-hydroxysteroid dehydrogenase 7; 17-beta-HSD 7; 3-keto-steroid reductase; Dihydrotestosterone oxidoreductase; Estradiol 17-beta-dehydrogenase 7; Short chain dehydrogenase/reductase family 37C member 1
Species	Human
Expression System	E. coli
Accession	P56937
Molecular Weight	Predictes a molecular mass of 26.94 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 27 kDa band.

Product Information

Sequence Region	1-229
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 1-229 aa (P56937) 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 3-keto-steroid reductase/17-beta-hydroxysteroid dehydrogenase 7 (HSD17B7) Fragment (aa 1-229) is a high-purity, soluble protein designed for structural and biochemical studies. This fragment retains key functional characteristics of the full-length enzyme, offering researchers a stable tool to investigate steroid hormone metabolism and cholesterol biosynthesis pathways. HSD17B7 is a bifunctional enzyme critical in both steroid hormone metabolism and cholesterol biosynthesis. It functions as a NADP(H)-dependent reductase, modulating the potency of sex hormones by converting estrone to the more active 17β-estradiol and inactivating dihydrotestosterone to 5α-androstane-3β,17β-diol. Additionally, it participates in post-squalene cholesterol synthesis as a 3-ketosteroid reductase. The enzyme is localized to the endoplasmic reticulum membrane as a single-pass membrane protein, where it regulates key metabolic processes. The provided fragment (aa 1-229) represents a computationally optimized soluble domain suitable for experimental applications without compromising functional relevance.