Recombinant ERG1 protein (His tag)

Catalog Number	540303
Synonyms	Squalene epoxidase; SE
Species	Human
Expression System	E. coli
Accession	Q14534
Molecular Weight	Predictes a molecular mass of 52.03 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 52 kDa band.

Product Information

Sequence Region	122-574
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 122-574 aa (Q14534) 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	This product is a high-quality recombinant fragment of human Squalene monooxygenase (SQLE), encompassing residues 122-574. It is designed for structural and biochemical studies, offering a stable and soluble unit of this key enzyme involved in steroid biosynthesis. Squalene monooxygenase (EC 1.14.14.17), also known as squalene epoxidase (SE), catalyzes the stereospecific oxidation of squalene to (S)-2,3-epoxysqualene. This reaction is considered a rate-limiting step in steroid biosynthesis, highlighting the enzyme's critical role in metabolic pathways. The full-length protein is localized to microsome and endoplasmic reticulum membranes, where it functions as a peripheral membrane protein, as supported by multiple experimental studies. The provided fragment represents a computationally optimized region for enhanced experimental utility while retaining relevance to the enzyme's functional context.