Recombinant ERR1 protein (His tag)

Catalog Number	542110
Synonyms	Estrogen receptor-like 1; Estrogen-related receptor alpha; ERR-alpha; Nuclear receptor subfamily 3 group B member 1
Species	Human
Expression System	E. coli
Accession	P11474
Molecular Weight	Predictes a molecular mass of 26.62 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 28 kDa band.

Product Information

Sequence Region	195-423
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 195-423 aa (P11474) 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 Steroid Hormone Receptor ERR1 (Estrogen-Related Receptor Alpha) fragment (amino acids 195-423) is a 229-residue protein designed for structural and biochemical studies. This fragment, derived from the ESRRA gene, is computationally selected for stability and solubility, making it ideal for investigating ERR1's role in energy metabolism and gene regulation. The full-length Steroid Hormone Receptor ERR1 (ESRRA) is a nuclear receptor that binds to ERR-alpha response elements (ERRE) and regulates genes involved in energy metabolism, such as medium-chain acyl coenzyme A dehydrogenase (MCAD) and lactoferrin. It requires dimerization and the coactivator PGC-1A for full activity, forming a complex critical for metabolic regulation, including induction of PERM1 in skeletal muscle. ERR1 primarily localizes to the nucleus but can also be found in the cytoplasm in the presence of MAPK15, highlighting its dynamic subcellular distribution and functional versatility in cellular signaling pathways.