



# Recombinant Protein Technical Manual

## Recombinant Human CMBL Protein (His Tag)

RPES1633

### Product Data:

**Product SKU:** RPES1633

**Size:** 20µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** Q96DG6

### Protein Information:

**Molecular Mass:** 30 kDa

**AP Molecular Mass:** 28 kDa

**Tag:** N-His

**Bio-activity:**

**Purity:** > 97 % as determined by reducing SDS-PAGE.

**Endotoxin:** Please contact us for more information.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile 20mM Tris, 0.1% Brij35, pH 8.0

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** JS

## Immunogen Information:

**Sequence:** Met 1-Met 245

## Background:

Carboxymethylenebutenolidase (CMBL), also known as 4-carboxymethylenebut-2-en-4-olide lactonohydrolase, maleylacetate enol- lactonase, dienelactone hydrolase, and carboxymethylene butenolide hydrolase, is a hydrolase specially belonging to the family of hydrolases. It mainly acts on carboxylic ester bonds. CMBL is a human homolog of *Pseudomonas* dienelactone hydrolase involved in the bacterial halocatechol degradation pathway. The ubiquitous expression of human CMBL gene transcript in various tissues was observed. CMBL was demonstrated to be the primary olmesartan medoxomil (OM) bioactivating enzyme in the liver and intestine. The recombinant human CMBL expressed in mammalian cells was clearly shown to activate OM. The recombinant CMBL also converted other prodrugs having the same ester structure as OM, faropenem medoxomil and lenampicillin, to their active metabolites. CMBL exhibited a unique sensitivity to chemical inhibitors, thus, being distinguishable from other known esterases.