

# Human IDH1 Protein

Cat. No. IDH-HE101

## Description

<b>Source</b>	Recombinant Human IDH1 Protein is expressed from E.coli with His tag at the C-Terminus. It contains Ser2-Leu414.
<b>Accession</b>	O75874
<b>Molecular Weight</b>	The protein has a predicted MW of 47.35 kDa same as Tris-Bis PAGE result.
<b>Endotoxin</b>	Less than 1EU per µg by the LAL method.
<b>Purity</b>	> 95% as determined by Tris-Bis PAGE > 90% as determined by HPLC

## Formulation and Storage

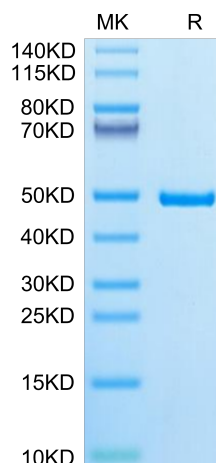
<b>Formulation</b>	Supplied as 0.22µm filtered solution in 50mM Tris, 200mM NaCl, 1mM DTT, 10% Glycerol (pH 7.5).
<b>Storage</b>	Valid for 12 months from date of receipt when stored at -80°C. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

Isocitrate dehydrogenase (IDH) is a metabolic enzyme that converts isocitrate to  $\alpha$ -ketoglutarate ( $\alpha$ -KG). Genetic gain-of-function mutations in IDH1 and IDH2 confer a neomorphic activity that allow reduction of  $\alpha$ -KG to (R)-2-hydroxyglutarate, the accumulation of which results in the development of cancers like low grade gliomas and leukemia. Isocitrate dehydrogenase 1 (IDH1) is the most frequently mutated metabolic gene in cancer.

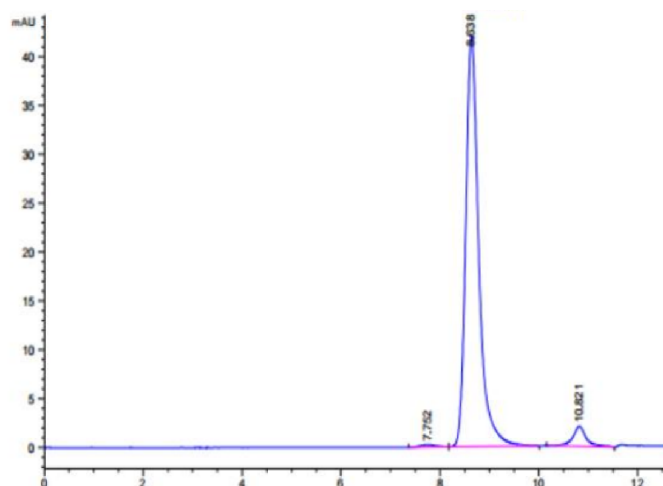
## Assay Data

### Tris-Bis PAGE



Human IDH1 on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC



The purity of Human IDH1 is greater than 95% as determined by SEC-HPLC.