

**CA8, 1-290aa, Human, His tag, E.coli**

**Cat.NO.: TP01393**

3th Edition

**Synonyms:**Carbonic anhydrase-related protein, CA-VIII, CALS, CAMRQ3, CARP

**Description:**CA8 was initially named CA-related protein because of sequence similarity to other known carbonic anhydrase genes. However, this protein lacks carbonic anhydrase activity (i.e., the reversible hydration of carbon dioxide). It continues to carry a carbonic anhydrase designation based on clear sequence identity to other members of the carbonic anhydrase gene family. Defects in CA8 are the cause of cerebellar ataxia mental retardation and dysequilibrium syndrome type 3 (CMARQ3). Recombinant human CA8 protein fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography.

**Form:**Liquid. 20mM Tris-HCl buffer (pH8.0) containing 20% glycerol, 1mM DTT

**Molecular Weight:**35.5 kDa (314aa), confirmed by MALDI-TOF (Molecular weight on SDS-PAGE will appear higher)

**Sequences:**

MGSSHHHHHHSSGLVPRGSHMGSHMADLSFIEDTVAFPEKEEDEEEEEEGVEWGYEEGVEWGLVFPDANGEYQ  
SPINLNSREARYDPSLLDVRLSPNYVVCRDCEVTNDGHTIQVILKSKSVLSGGPLPQGHEFELYEVRFHWGRENQR  
GSEHTVNFKAFPMELHLIHWNSTLFGSIDEAVGKPHGIAIIALFVQIGKEHVGLKAVTEILQDIQYKGKSKTIPCFNPNT  
LLPDPLLRDYWVYEGSLTIPPCSEGVTWILFRYPLTISQLQIEEFRRRLRTHVKGAELEVGCDGILGDNFRPTQPLSDR  
VIRAAFAQ

**Purity:**> 95% by HPLC

**Concentration:**1 mg/ml (determined by Bradford assay)

**Endotoxin Level:**<1.0 EU per 1 ug of protein (determined by LAL method)

**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.