

Active Recombinant Mouse Carbonic Anhydrase 8, His-tagged

Cat. No. Car8-1804M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	A DNA sequence encoding the mouse Car8 (P28651)(Met 1-Gln 291) was expressed, with a C-terminal polyhistidine tag.
Species	Mouse
Source	Mouse
ProteinLength	1-291 a.a.
Description	Car8 are a large family of zinc metalloenzymes first discovered in 1933 that catalyze the reversible hydration of carbon dioxide. Car8 participate in a variety of biological processes, including respiration, calcification, acid-base balance, bone resorption, and the formation of aqueous humor, cerebrospinal fluid, saliva, and gastric acid.
Form	Lyophilized from sterile 50 mM Tris, pH 8.0. Normally 5%-8% trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA.
Purity	> 88 % as determined by SDS-PAGE
Bio-activity	Measured by its esterase activity. The specific activity is > 5 pmoles/min/μg.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Stability	Samples are stable for up to twelve months from date of receipt at -70°C.

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Predicted N terminal	Met 1
Molecular Mass	The recombinant mouse Car8 comprises 301 amino acids and has a calculated molecular mass of 34.5 kDa. The recombinant protein migrates as an approximately 37 kDa band in SDS-PAGE under reducing condition.
Application	SDS-PAGE
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products.
Storage	Store it under sterile conditions at -70°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Pathways	Nitrogen metabolism
GENE INFORMATION	
Gene Name	Car8 carbonic anhydrase 8 [Mus musculus]
Official Symbol	Car8
Synonyms	Car8; carbonic anhydrase 8; Ca8; wdl; Cals; Carp; Cals1; AW546993; carbonic anhydrase-related protein; CA-VIII; CA-RP VIII; OTTMUSP00000004709; carbonic anhydrase VIII; carbonic anhydrase-like sequence 1; NP_031618.2; EC 4.2.1.1
Gene ID	12319
mRNA Refseq	NM_007592
Protein Refseq	NP_031618

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UniProt ID	P28651
Chromosome Location	4
Function	carbonate dehydratase activity; metal ion binding; protein binding; zinc ion binding

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