

## Active Recombinant Mouse Carbonic Anhydrase 8, His-tagged

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

### SPECIFICATION

<b>Product Overview</b>	A DNA sequence encoding the mouse Car8 (P28651)( Met 1-Gln 291) was expressed, with a C-terminal polyhistidine tag.
<b>Species</b>	Mouse
<b>Source</b>	Mouse
<b>ProteinLength</b>	1-291 a.a.
<b>Description</b>	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.
<b>Form</b>	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.
<b>Purity</b>	> 88 % as determined by SDS-PAGE
<b>Bio-activity</b>	Measured by its esterase activity. The specific activity is > 5 pmoles/min/μg.
<b>Endotoxin</b>	< 1.0 EU per μg of the protein as determined by the LAL method.
<b>Stability</b>	Samples are stable for up to twelve months from date of receipt at -70°C.

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<b>Predicted N terminal</b>	Met 1
<b>Molecular Mass</b>	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.
<b>Application</b>	SDS-PAGE
<b>Reconstitution</b>	A hardcopy of COA with reconstitution instruction is sent along with the products.
<b>Storage</b>	Store it under sterile conditions at -70°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
<b>Pathways</b>	Nitrogen metabolism

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">Car8 carbonic anhydrase 8 [ Mus musculus ]</a>
<b>Official Symbol</b>	<a href="#">Car8</a>
<b>Synonyms</b>	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
<b>Gene ID</b>	<a href="#">12319</a>
<b>mRNA Refseq</b>	<a href="#">NM_007592</a>
<b>Protein Refseq</b>	<a href="#">NP_031618</a>

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

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