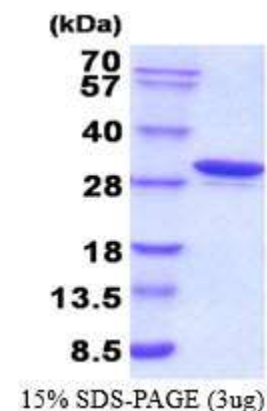


## Carbonic anhydrase-1, human recombinant

<b>CATALOG NO:</b>	P1048-10	10 µg
	P1048-50	50 µg
<b>ALTERNATE NAMES:</b>	CA1, CA-I, CAB	
<b>CONCENTRATION:</b>	1 mg/ml (determined by Bradford assay)	
<b>SOURCE:</b>	<i>E.coli</i> expressed recombinant CA1 protein, fused to His-tag at N-terminus (1-261aa).	
<b>PURITY:</b>	> 95% by SDS-PAGE	
<b>MOL. WEIGHT:</b>	This protein is fused with 6x His tag at N terminus and the protein has a calculated MW of 31 kDa (281aa).	
<b>FORM:</b>	Liquid	
<b>FORMULATION:</b>	In 20 mM Tris-HCl buffer (pH8.0) containing 1mM DTT, 10% glycerol	
<b>STORAGE CONDITIONS:</b>	Store at +4°C for short term (1-2 weeks). For long term storage, aliquot and store at -70°C. Avoid repeated freeze/thaw cycles.	
<b>SEQUENCE:</b>	MGSSHHHHHH SSGLVPRGSH MASP DWGYDD KNGPEQWSKL YPIANGNNQS PVDIKTSETK HDTSLKPISV SYNPAKAI INVGHSHFVN FEDNDNRSVL KGGPFSDSYR LQFHFHWGS TNEHGSEHTV DGVKYSALH VAHWNSAKYS SLAEAASKAD GLAVIGVLMK VGEANPKLQK VLDALQAIKT KGKRAPFTNF DPSTLLPSSL DFWTYPGSLT HPPLYESVTW IICKESISVS SEQLAQFRSL LSNVEGDNAV PMQHNNRPTQ PLKGRTVRAS F	
<b>DESCRIPTION:</b>	Carbonic anhydrase (CA) is an enzyme that catalyses rapid conversion of carbon dioxide to bicarbonate and protons ( $\text{CO}_2 + \text{H}_2\text{O} \leftrightarrow \text{HCO}_3^- + \text{H}^+$ ). Most carbonic anhydrases contain a zinc ion in their active site and the primary function of this enzyme is known to maintain acid-base balance in blood and other tissues, and to help transport carbon dioxide of tissues. Carbonic anhydrases have been found in all kingdoms of life. Recombinant carbonic anhydrase fused to His-tag, was expressed in <i>E.coli</i> and purified by conventional chromatography techniques. Specific activity is >450 pmol/min/ug, and is defined as the amount of enzyme that hydrolyze 1.0 pmole of 4-nitrophenyl acetate to 4-nitrophenol per minute at pH 7.5 at 37C.	
<b>BIOLOGICAL ACTIVITY:</b>	Specific activity is > 300 pmol/min/ug, and is defined as the amount of enzyme that hydrolyze 1.0 pmole of 4-nitrophenyl acetate to 4-nitrophenol per minute at pH 8.0 at 37C.	



Human recombinant CA1

### RELATED PRODUCT:

- Human CellExp™ CA2, human recombinant (Cat. No. 7479-10, -50)
- Human CellExp™ CA4, human recombinant (Cat. No. 7484-10)
- Human CellExp™ CA9, human recombinant (Cat. No. 7478-10)
- Human CellExp™ CA10, human recombinant (Cat. No. 7485-10)
- Human Recombinant Carbonic anhydrase 2 (Cat. No. 6390-100)
- Carbonic Anhydrase 3 /CA3, human recombinant (Cat. No. 7833-10, -50)
- MMP-1, human recombinant (Cat. No. 7781-10, 50, 1000)
- MMP-2, human recombinant (Cat. No. 7782-10, 50, 1000)
- MMP-3, human recombinant (Cat. No. 7783-10, 50, 1000)
- MMP-9, human recombinant (Cat. No. 7789-10, 50, 1000)

**FOR RESEARCH USE ONLY! Not to be used on humans.**