## Recombinant Human Carbonic Anhydrase 10/CA10 Protein

## Catalog Number: PKSH031484

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

Description		
Species	Н	luman
Source	Н	EK293 Cells-derived Human Carbonic Anhydrase 10/CA10 protein Met 1-Asn 300
Calculated MW	2'	7.2 kDa
Observed MW	3	8 kDa
Accession	N	IP_001076002.1
<b>Bio-activity</b>	Ν	Ieasured by its esterase activity. The specific activity is $> 100$ pmoles/min/µg, as
	n	neasured with 1 mM 4-Nitrophenyl acetate and 1 $\mu$ g enzyme at 400 nm in 100 $\mu$ L of
	1	2.5 mM Tris, 75 mM NaCl, pH 7.5.
Properties		
Purity	>	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	<	< 1.0 EU per $\mu$ g of the protein as determined by the LAL method.
Storage	G	enerally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80
	°(	C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of
	re	econstituted samples are stable at $< -20^{\circ}C$ for 3 months.
Shipping	Т	his product is provided as lyophilized powder which is shipped with ice packs.
Formulation	L	yophilized from sterile 100mM Glycine, 10mM NaCl, 50mM Tris, pH 7.5
	N	formally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants
	b	efore lyophilization.
	Р	lease refer to the specific buffer information in the printed manual.
Reconstitution	Р	lease refer to the printed manual for detailed information.
Data		
	KDa MK R	
	116	
	66.2	

45.0	
35.0	-
25.0	-
18.4	-
14.4	

> 95 % as determined by reducing SDS-PAGE.

Background

## **Elabscience**®

Carbonic anhydrase X, also called carbonic anhydrase - related protein X (CARPX) and CA10, belongs to the CA family of zinc metalloenzymes which catalyze the reversible hydration of carbon dioxide in various biological processes such as respiration, renal tubular acidification and bone resorption. The secreted protein CARPX without CA activity (hydration of CO2) is identified as an acatalytic member of the alpha-carbonic anhydrase subgroup. CARP X expression is detected in the adult total brain and almost all parts of the central nervous system, but not in the fetal brain. Accordingly, CARP X is suggested to play a role in the development of central nervous system, especially the brain. The same CARP X protein are encoded by multiple transcript variants of this gene.