

Recombinant human ACE-2 protein

Catalog Number: ATGP3963

PRODUCT INFORMATION

Expression system

HEK293

Domain

18-740aa

UniProt No.

Q9BYF1

NCBI Accession No.

NP_068576.1

Alternative Names

Angiotensin-converting enzyme 2, ACEH, Angiotensin-converting enzyme-related carboxypeptidase, ACE-related carboxypeptidase, Metalloprotease MPROT15, ACE2

PRODUCT SPECIFICATION

Molecular Weight

110.8kDa (965aa)

Concentration

0.5mg/ml (determined by Absorbance at 280nm)

Formulation

Liquid. In Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

Purity

> 90% by SDS - PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Measured by its binding ability in a functional ELISA with SARS-CoV-2 Spike RBD. The ED50 range $\leq$ 100ng/ml. Specific activity is > 250 pmol/min/ug, and is defined as the amount of enzyme that hydrolysis 1.0 pmole of Mca-YVADAPK(Dnp)-OH per minute at pH 7.5, at 25C.

Tag

hIgG-His-Tag

Application

SDS-PAGE, Enzyme Activity, Bioactivity

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

Recombinant human ACE-2 protein

Catalog Number: ATGP3963

BACKGROUND

Description

ACE-2, also known as Angiotensin-converting enzyme 2, is an enzyme attached to the cell membranes of cells in the lungs, arteries, heart, kidney, and intestines. This enzyme lowers blood pressure by catalysing the hydrolysis of angiotensin II into angiotensin. It counters the activity of the related angiotensin-converting enzyme (ACE) by reducing the amount of angiotensin-II and increasing Ang(1-7) making it a promising drug target for treating cardiovascular diseases. ACE-2 also serves as the entry point into cells for some coronaviruses, including HCoV-NL63, SARS-CoV, and SARS-CoV-2. Recombinant human ACE-2, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques

Amino acid Sequence

<DGS>QSTIEEQ AKTFLDKFNH EAEDLFYQSS LASWNYNTNI TEENVQNMNN AGDKWSAFLK EQSTLAQMYP
LQEIQNLTVK LQLQALQQNG SSVLSEDKSK RLNTILNTMS TIYSTGKVCN PDNPQECLLL EPGLNEIMAN SLDYNERLWA
WESWRSEVGK QLRPLYEEYV VLKNEMARAN HYEDYGDYWR GDYEVNGVDG YDYSRGQLIE DVEHTFEEIK PLYEHLHAYV
RAKLMNAYPS YISPIGCLPA HLLGDMWGRF WTNLYSLTVP FGQKPNIDVT DAMVDQAWDA QRIFKEAEKF FVSVGLPNMT
QGFWENSMLT DPGNVQKAVC HPTAWDLGKG DFRILMCTKV TMDDFLTAHH EMGHIQYDMA YAAQPFLLRN
GANEGFHEAV GEIMSLSAAT PKHLKSIGLL SPDFQEDNET EINFLLKQAL TIVGTLPFTY MLEKWRWMVF KGEIPKDQWM
KKWWEWKREI VGVVEPVPHD ETYCDPASLF HVSNDYSFIR YYTRTLYQFQ FQEALCQAAK HEGPLHKCDI SNSTEAGQKL
FNMLRLGKSE PWTALENVV GAKNMNVRPL LNYFEPLFTW LKDQNKNSFV GWSTDWSPYA DQSIKVRISL KSALGDKAYE
WNDNEMYLFR SSVAYAMRQY FLKVKNQMIL FGEEDVRVAN LKPRISFNFF VTAPKNVSDI IPRTVEVEKAI RMSRSRINDA
FRLNDNSLEF LGIQPTLGPP NQPPVS<LEPK SCDKTHTCPP CPAPELLGGP SVFLFPPKPK DTLNISRTPE VTCVVVDVSH
EDPEVKFNWY VDGVEVHNAK TKPREEQYNS TYRVVSVLTV LHQDWLNGKE YKCKVSNKAL PAPIEKTISK AKGQPREPQV
YTLPPSRDEL TKNQVSLTCL VKGFYPSDIA VEWESNGQPE NNYKTPPVVL DSDGSFFLYS KLTVDKSRWQ QGNVFSCSVM
HEALHNHYTQ KSLSLSPGKH HHHHH>

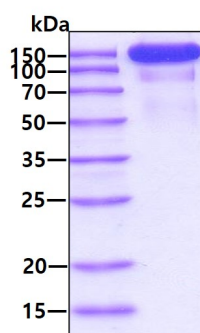
General References

Hamming I., et al, (2004) J Pathol. 203:631-637.

Mohammed A.r. Chamsi-Pasha., et al, (2014) Curr Heart Fail Rep. 11:58-63.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

Biological Activity

Recombinant human ACE-2 protein

Catalog Number: ATGP3963

SARS-CoV-2 Spike RBD is coated at 5 ug/ml (100 ul/well) can bind Human ACE-2. The ED50 range $\leq$ 100ng/ml.

