

Chloride Channel Accessory 1 (CLCA1) Active Protein | CLCA1 active protein

Active Chloride Channel Accessory 1 (CLCA1)

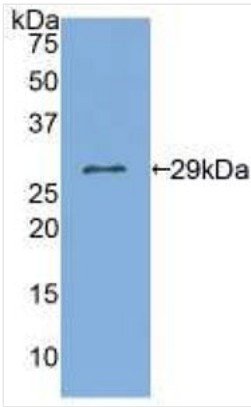
CATALOG # AAA148124	HOST E. coli	APPLICATIONS Invitro Assay, Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Chloride Channel Accessory 1 (CLCA1); Active Chloride Channel Accessory 1 (CLCA1); CLCA1 active protein

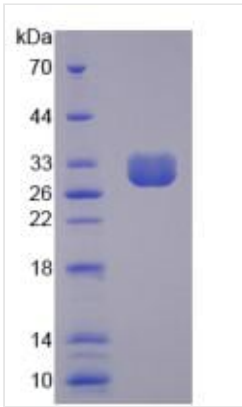
PRODUCT SPECIFICATIONS

Host	E. coli
Purity/Purification	>98%
Form/Format	20mM Tris, 150mM NaCl, pH8.0, containing 0.01% skl and 5% trehalose.
Concentration	Original Concentration: 50ug/mL (varies by lot)
Applicable Applications for CLCA1 active protein	Invitro Assay, Activity Assay, Cell Culture
Organism Species	Homo sapiens (Human)
Source	Prokaryotic expression.
Residues	Asn416~Arg670
Tags	N-terminal His-tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method).
Predicted isoelectric point	7.1
Usage	Reconstitute in ddH2O to a highest concentration of 0-0.05mg/mL. Do not vortex.
Preparation and Storage	Storage: Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.



WB (Western Blot)

Figure 3. Western BlotSample: Recombinant CLCA1, Human;Antibody: Rabbit Anti-Human CLCA1 Ab



SDS-PAGE

Figure 2. SDS-PAGESample: Active recombinant CLCA1, Human

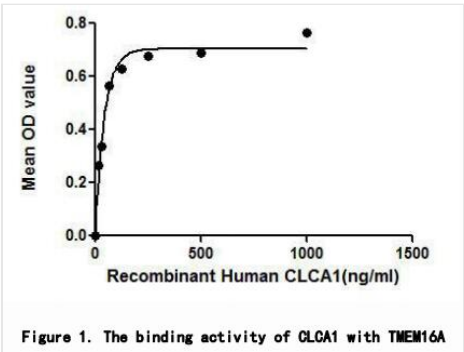


Figure 1. The binding activity of CLCA1 with TMEM16A

NTISG CFNEVKQSGA IIHTVALGPS AAQEELELSK
MTGGLQTYAS DOVQNNGLID AFGALSSNG AVSQRSIQLE SKGLTLQNSQ
WMNGTVIVDS TVGKDTLFLI TWTMQPPQIL LNDPSGQKQG GFVVDKNTKM
AYLQIPGIAK VGTWKYSLQA SSQTLTLTVT SRASNATLPP ITVTSKTNKD
TSKFPSPLVV YANIRQGASP ILRASVTALI ESVNGKTVTL ELLDNGAGAD
ATKDDGVYSR YFTTYDTNGR

Sequence

Bioactivity

CLCA1 (Calcium-activated chloride channel regulator 1) is a member of the calcium sensitive chloride conductance protein family. This protein is expressed as a precursor protein that is processed into two cell-surface-associated subunits. It has been reported that CLCA1 activates calcium-dependent chloride channel through the interaction with TMEM16A (anoctamin-1). Besides, there exits similarities between human and mouse TMEM16A in amino acid sequence with the identity of 89.66%. Thus, a functional ELISA assay was conducted to detect the association of recombinant human CLCA1 with recombinant mouse TMEM16A. Briefly, CLCA1 were diluted serially in PBS with 0.01%BSA (pH 7.4). Duplicate samples of 100uL were then transferred to TMEM16A-coated microtiter wells and incubated for 2h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-CLCA1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of CLCA1 with TMEM16A was shown in Figure 1 and this effect was in a dose dependent manner.

ADDITIONAL INFORMATION

Product Categories/Family for CLCA1 active protein	Signal Transduction
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NCBI AND UNIPROT INFORMATION

NCBI GI #	110611231
NCBI GeneID	1179
NCBI Accession #	NP_001276.2
NCBI GenBank Nucleotide #	NM_001285.3
Molecular Weight	Predicted Molecular Mass: 28.4kDa Accurate Molecular Mass: 28kDa as determined by SDS-PAGE reducing conditions.

NCBI Official Full Name	calcium-activated chloride channel regulator 1
NCBI Official Synonym Full Names	chloride channel accessory 1
NCBI Official Symbol	CLCA1
NCBI Official Synonym Symbols	CACC; GOB5; CACC1; CLCRG1; CaCC-1; hCLCA1; hCaCC-1
NCBI Protein Information	calcium-activated chloride channel regulator 1
UniProt Protein Name	Calcium-activated chloride channel regulator 1
UniProt Gene Name	CLCA1
UniProt Synonym Gene Names	CACC1; hCLCA1; CaCC-1; hCaCC-1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/chloride-channel-accessory-1-clca1/148124>