

## CLCN3 Protein, Human (Cell-Free, His)

<b>Cat. No.:</b>	HY-P702244
<b>Synonyms:</b>	H(+)/Cl(-) exchange transporter 3; Chloride channel protein 3; ClC-3; Chloride transporter ClC-3
<b>Species:</b>	Human
<b>Source:</b>	E. coli Cell-free
<b>Accession:</b>	P51790 (M1-N818)
<b>Gene ID:</b>	1182
<b>Molecular Weight:</b>	93.2 kDa

### PROPERTIES

#### AA Sequence

M A S M T G G Q Q M	G R D P M E S E Q L	F H R G Y Y R N S Y	N S I T S A S S D E
E L L D G A G V I M	D F Q T S E D D N L	L D G D T A V G T H	Y T M T N G G S I N
S S T H L L D L L D	E P I P G V G T Y D	D F H T I D W V R E	K C K D R E R H R R
I N S K K K E S A W	E M T K S L Y D A W	S G W L V V T L T G	L A S G A L A G L I
D I A A D W M T D L	K E G I C L S A L W	Y N H E Q C C W G S	N E T T F E E R D K
C P Q W K T W A E L	I I G Q A E G P G S	Y I M N Y I M Y I F	W A L S F A F L A V
S L V K V F A P Y A	C G S G I P E I K T	I L S G F I I R G Y	L G K W T L M I K T
I T L V L A V A S G	L S L G K E G P L V	H V A C C C G N I F	S Y L F P K Y S T N
E A K K R E V L S A	A S A A G V S V A F	G A P I G G V L F S	L E E V S Y Y F P L
K T L W R S F F A A	L V A A F V L R S I	N P F G N S R L V L	F Y V E Y H T P W Y
L F E L F P F I L L	G V F G G L W G A F	F I R A N I A W C R	R R K S T K F G K Y
P V L E V I I V A A	I T A V I A F P N P	Y T R L N T S E L I	K E L F T D C G P L
E S S S L C D Y R N	D M N A S K I V D D	I P D R P A G I G V	Y S A I W Q L C L A
L I F K I I M T V F	T F G I K V P S G L	F I P S M A I G A I	A G R I V G I A V E
Q L A Y Y H H D W F	I F K E W C E V G A	D C I T P G L Y A M	V G A A A C L G G V
T R M T V S L V V I	V F E L T G G L E Y	I V P L M A A V M T	S K W V G D A F G R
E G I Y E A H I R L	N G Y P F L D A K E	E F T H T T L A A D	V M R P R R N D P P
L A V L T Q D N M T	V D D I E N M I N E	T S Y N G F P V I M	S K E S Q R L V G F
A L R R D L T I A I	E S A R K K Q E G I	V G S S R V C F A Q	H T P S L P A E S P
R P L K L R S I L D	M S P F T V T D H T	P M E I V V D I F R	K L G L R Q C L V T
H N G R L L G I I T	K K D I L R H M A Q	T A N Q D P A S I M	F N

#### Appearance

Lyophilized powder.

#### Formulation

Lyophilized from a 0.22  $\mu$ m filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

#### Endotoxin Level

<1 EU/ $\mu$ g, determined by LAL method.

#### Reconstitution

It is not recommended to reconstitute to a concentration less than 100  $\mu$ g/mL in ddH<sub>2</sub>O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.

**Storage & Stability**

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

**Shipping**

Room temperature in continental US; may vary elsewhere.

**DESCRIPTION****Background**

CLCN3 protein functions as a strongly outwardly rectifying, electrogenic H<sup>(+)</sup>/Cl<sup>(-)</sup> exchanger, facilitating the exchange of chloride ions against protons. As a member of the CLC channel family, which encompasses both chloride channels and proton-coupled anion transporters, CLCN3 is involved in the exchange of chloride or another anion for protons. The family's characteristic presence of conserved gating glutamate residues suggests its members' functionality as antiporters. The robust outward rectification and electrogenic nature of CLCN3 underscore its role in the dynamic exchange between chloride ions and protons.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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