ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Chloride Channel-3 (CLC-3 or CLCN3) Antibodies

Cat. # CLC31-P	Rat CLC-3 Control Peptide #1	**SIZE**: 100 ug
Cat. # CLC31-S	Rabbit Anti-rat CLC-3 antiserum #1	**SIZE**: 100 ul
Cat. # CLC31-A	Rabbit Anti-rat CLC-3, IgG # 1 (aff pure)	**SIZE**: 100 ug

Chloride is a critical component of all living cells. Voltage-gated chloride channels regulate cellular traffic of chloride ion. In mammals, CLC proteins form a superfamily of at least 9 different genes (CLC1-7 also known as CLCN1-7 and CLK1-2 or CLCKa and CLCKb). Additional forms of these proteins are obtained by alternative splicing. All CLC proteins (~700-1000 aa) are predicted to contain 10 (possibly 12) transmembrane domains. Except CLC-1 and CLC-K1/K2 that are specific for kidney, most other CLC are widely distributed in various tissues.

Rat CLC-3 is 760 aa membrane protein (human CLC-3 760 or 820 aa; mouse CLC-3 760/818 aa) (1). Alternatively spliced short forms of mouse and human CLC-3 have also been found. CLC-3 is abundant in brain (olfactory, hippocampus, and cerebellum) and moderate levels are found in the lung, kidney, and adrenals. CLC-3 has been implicated in neuronal cell function through regulation of membrane excitability by protein kinase C. It could also help neuronal cells to establish short-term memory.

Source of Antigen and Antibodies

Antigen	18aa peptide of rat CLC3; **Designated (CLC31-P or control peptide);** ~ C-terminus, Extracellular domain
Ab Host/type	Rabbit, polyclonal Unpurified antiserum (cat #CLC31-S) and Aff pure IgG (**cat #CLC31-A)** purified over antigen-agarose column
2-ab	Anti-rabbit IgG-HRP cat # 20320 (AP, biotin, FITC conjugates also available)
-ve control IgG	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)
100ul solution lyophilized powder
Supplied 0.05% azide, **Reconstitute** powder in 100 ul PBS

Affinity pure IgG
100 ug/100ul solution lyophilized powder
Supplied in **Buffer**: PBS+0.1% BSA
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide
100 ug/100 ul solution lyophilized powder
Supplied in Buffer: PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.
Shipping: 4oC for solutions and room temp for powder

Recommended Usage

Western Blotting (1:1K-5K for neat serum and 1-10 ug/ml for affinity pure antibody using ECL technique).

ELISA: Control peptide can be used to coat ELISA plates at 1 ug/ml and detected with antibodies (1:10-50K for neat serum and 0.5-1 ug/ml for affinity pure).

Histochemistry & Immunofluorescence: Not tested. We recommend the use of affinity purified antibody at 1-20 ug/ml in paraformaldehyde fixed sections of tissues.

Specificity & Cross-reactivity

The 18 AA rat CLC31-P control peptide is 100% conserved in mouse, guinea pig, rat, human, rabbit, and frog CLC-3. No significant sequence homology is detected with other CLCs or other proteins. antibody cross-reactivity in various species has not been studied. There is a very high degree of protein homology among CLC-3, CLC-4, and CLC-5. However, CLC31-P peptide has very little sequence homology with CLC-4, and CLC-5. Anti-rat CLC31 antibodies were checked against the corresponding CLC-4 (Cat # CLC41-P) and CLC-5 (Cat # CLC51-P). These peptides are also available to confirm specificity of antibodies. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (see detailed protocol at the web site).

General References: Kawasaki M et al (1994) Neuron 12, 597-604; Borsani G et al (1995) Genomics 27, 131-141.

*This product is for In vitro research use only.

Related material available from ADI

Antibodies CLC1-7 and CLC-K1; KCCL1-3; AQP-9 and RUT; OCT and OAT, AE-3, and NACX

Recycle your blot in Just 5-10 min. (use the same strip for various Dopamine receptors) New formulation will strip antibodies at room temp. (no boiling or pungent mercaptoethanol).

CLC31-S-A-P 71217A

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