

Product Data Sheet

Human alpha 1 antichymotrypsin (ACT) Protein and Antibodies

□ Cat. # ACT11-A	Sheep Anti- Human alpha 1 antichymotrypsin (ACT) protein IgG, aff pure	SIZE: 100 ug
□ Cat. # ACT11-C	Purified Human alpha 1 antichymotrypsin (ACT) protein control for WB	SIZE: 100 ul

Alpha 1-antichymotrypsin is an alpha globulin glycoprotein that is a member of the serpin superfamily. It inhibits the activity of certain enzymes called proteases, such as cathepsin G that is found in neutrophils, and chymases found in mast cells, by cleaving them into a different shape or conformation. This activity protects some tissues, such as the lower respiratory tract, from damage caused by proteolytic enzymes. This protein is produced in the liver, and is an acute phase protein that is induced during inflammation. Deficiency of this protein has been associated with liver disease. Mutations have been identified in patients with Parkinson disease and chronic obstructive pulmonary disease. Alpha 1-antichymotrypsin is also associated with the pathogenesis of Alzheimer's disease as it enhances the formation of amyloid-fibrils in this disease.

Source of Antigen and Antibodies

Antigen	Highly purified human alpha 1 antichymotrypsin (ACT) protein
Ab Host/type	Sheep polyclonal IgG # ACT11-A supplied in in PBS, pH 7.4, 0.1% BSA
2-Ab	Rabbit Anti-Sheep IgG-HRP cat # 50320 (AP, biotin, FITC conjugates also available)
-ve	Cat # 20006-1, sheep (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

#ACT12, Western blot control

Highly purified native human ACT was purified from plasma (>99%, mol wt ~68 kda) and used for control. For Western blot +ve control (**Cat # ACT11-C**) is supplied in SDS-PAGE sample buffer (reduced). Load 10 ul/lane of **#ACT11-C** for good visibility with antibody Cat # **ACT11-A** or **#ACT11-A** other antibodies. Store at -20oC in suitable size aliquots. SDS may crystallize in cold conditions. It should redissolve by warming before taking it from the stock. It should be heated once prior to loading on gels. If the product has been stored for several weeks, then it may be preferable to add 5 ul of fresh 2x sample buffer per 10 ul of the **ACT11-C** solution prior to heating and loading on gels. This preparation is not biologically active. It is not suitable for ELISA or other applications where native protein is required. Do not freeze, thaw, or heat repeatedly.

Storage

Short-term: unopened, undiluted liquid vials for less than a week at 4oC.

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.

Recommended usage

ELISA-use at 0.1-1 ug/ml as detection antibody

Western-use at 0.2-2 ug/ml using ECL and 20-100 ng antigen per well.

Immunohistochemistry-Not tested.

Specificity & Cross-reactivity

The ACT11-A reacts with human ACT. It has no reactivity with alpha-1-antitrypsin. Antibody cross-reactivity in various species has not been studied. Purified human ACT protein (**#ACT11-C**) is available for control studies.

References: Kalsheker N (1996) Int. J. Biochem. Cell Biol. 28 (9): 961-4; Janciauskiene S (1999) Bioessays 20 (12): 1039-46; Kalsheker N (2002) Biochem. Soc. Trans. 30 (2): 93-8; Kroczyńska, Barbara; (2004) J. Biol. Chem. 279 (12): 11432-43.

For in vitro research use only

Related Material available for ADI

Sheep-Poly ACT11-A Anti-Human alpha 1 antichymotrypsin (ACT) IgG, aff pure

Mouse-Mono ACT12-M Monoclonal Anti-Human alpha 1 antichymotrypsin (ACT) IgG, aff pure

ACT11-C Purified Human alpha 1 antichymotrypsin (ACT) protein control for WB

Anti-Rabbit HRP conjugates; Anti-Mouse, human, rat, and Monkey IgG-HRP and subsotype specific conjugates

Western blot recycling kit (Use the same blot/strip to probe with multiple antibodies,

Chemiluminescence Substrates and Western blot kits (save by complete kit that includes Anti-rabbit IgG-HRP conjugate, blocking buffer, wash buffer, and Chemiluminescence Substrates for processing 15-30 std size blots).

ACT11-A 140928A

India Contact:

Life Technologies (India) Pvt. Ltd.

306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi - 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444
Email: customerservice@lifetechindia.com Website: www.lifetechindia.com