

Product Data Sheet

Human alpha 1 antichymotrypsin (ACT) Protein and Antibodies

ACT15-N-100

Human alpha 1 antichymotrypsin (ACT) protein

Size: 100 ug

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 protein

#ACT15-N-100 (purified protein)

Human alpha-1 ACT is purified from plasma (>99%, single arc corresponding to ACT in IEP Vs anti-normal human serum). All human derived material has been tested negative for HIV, HCV, and HbSAg. Nevertheless, all precautions should be taken and samples be treated as potentially hazardous.

Human alpha-1 ACT protein is purified to > 99% (Mol wt ~68 kda doublet). It is supplied lyophilized in a buffer (0.02M NaHCO₃) in vials of 1 mg or other sizes indicated on the vial. Reconstitue lyophilized protein in a buffer (>pH 7.0 containing 0.15M NaCl).

The powder should be stored in the freezer (-20 °C). If properly stored, these products have a shelf life of at least two years. Solutions lose <2 % of their activity per week if stored at -20 °C.

Recommended usage

-As antigens for ELISA, western

-for affinity column preparation to enrich or remove human anti-Tg antibodies from serum or plasma

Optimum concentrations for a given application must be determined by the user

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 subisotype 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).

ACT15-N-100 10117A

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