ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

LIFE TECH Life Technologies™ Your Molecular & Cell Technology Partner

Adipsin (CFAD/CFD) Antibodies

Cat # ADN12-P	Human Adipsin control/blocking peptide # 2	**SIZE**: 100 ug
Cat # ADN12-S	Rabbit Anti-Human Adipsin antiserum	**SIZE**: 100 ul
Cat # ADN12-A	Rabbit Anti-Human Adipsin IgG # 2, aff. Pure	**SIZE**: 100 ug
Cat # ADN12-C	Human Adipsin/Factor D WB +ve control # 2	**SIZE**: 100 ul

Adipsin is serine protease that is secreted by adipocytes. It is deficient in several animal model of obesity. Adipsin has now been identified as the same protein as complement factor D. **Adipsin, also called ADN or complement factor D or C3 convertase activator or properdin factor D** (precursors: mouse 259-aa; rat 263 aa, human 253 aa, mature protein 26-253, ~22 kDa) cleaves factor B when the latter is complexed with factor C3B, activating the C3BB complex, which then becomes C3 convertase of the alternative pathway. Adipocyte is the major protein secreted by the adipocytes. Unlike rodents, adipsin is also expressed in monocytes/macrphages. Most adipsin is secreted in blood (50 ug/ml in normal lean mice and 50-100 fold less in fat from db/db or ob/ob or MSG (monosodium glutamate-treated mice). Adipsin is induced upon differentiation of preadipocytes.

Sources of antigen and antibodies

Antigen	18-aa peptide from **human adipsin /CFD/CFAD (protein accession #P00746, refs 1)**; **Designation (#ADN12-P, control/blocking peptide**) conjugated to KLH
Epitope	~N-terminus
Ab Host/type	Rabbit, unpurified antiserum (# ADN12-S) Polyclonal IgG, purified over antigen-agarose (Cat # **ADN12**-A)
2-Ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
-ve control IgG	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control

Human adipsin/factor D protein for Western blot +ve control (**Cat # ADN12-C**) is supplied in SDS-PAGE sample buffer (reduced). Load 10 ul/lane of **ADN12**-C for good visibility with antibody Cat # **ADN12**-A. 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 **ADN12**-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. This preparation is intended for qualitative purpose and not to serve as standard of known concentration. Do not freeze, thaw, or heat repeatedly

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)
100ul solution lyophilized powder
Supplied in Buffer: 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 blot: Optimal dilution must be determined by user. We suggest initial testing of antiserum at 1:1K-1:5K and aff pure IgG at 1-5 ug/ml using ECL. Adipsin is ~22 kDa.

ELISA (1:10-50K; 10-100 ng of control peptide/well).

Immunohistochemistry: not tested.

Specificity and crossreactivity

Human ADN12-P sequence is 95% conserved in chimp, 80% in bovine, 78% in pig, 70% in rat, and 63% in mouse adipsin. We recommend the use of anti-mouse adipsin (cat # ADN11-S) for mouse/rat adipsin. Antibody cross-reactivity in various species has not been studied. 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: www.4adi.com\data\abblock.html).

General References: (1) White RT et al (1992) JBC 267, 9210; Niemann MA et al (1984) Biochem. 23, 2482; Johnson DM et al (1980) Bicohem. J. 187, 863; Volanakis Je et al (1980) PNAS 77, 1116; Zhu L et al (1994) J. Clin. Invest. 94, 1163; Baker BC et al (1991) 279, 775; Min HY et al (196) Nucl Acid Res. 14, 8879;

This product is for In vitro research use only.

Antibodies to acrp30, Orexin, leptin and receptors

ADN12-S-A-P-C 70808A

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