

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Afadin/AF-6 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human METTL-11A is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Afadin/AF-6 Asn217-Pro392 Accession # P55196
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Afadin, also MLLT-4 (Myeloid/Lymphoid or mixed-lineage Leukemia Translocated to Ch 4) and AF6, is a 200-210 kDa nectin and F-actin-binding intracellular protein. It is ubiquitously expressed, and serves as an intermediary that links nectin with the actin cytoskeleton in tight and adherens junctions (AJs). Afadin is involved in the nectin-mediated recruitment of catenins to zonule adherens complexes, and in the recruitment of ZO-1 to the apical side of AJs for the purpose of forming tight junctions. Human Afadin is 1824 amino acids (aa) in length. The protein contains two Ras-association (RA) domains (aa 20-348), a phosphoprotein FHA domain (aa 426-492), a Vav2 Ras-activating "dilute" domain (aa 668-908), one PDZ domain that binds protein C-termini (aa 1007-1093), and three proline-rich regions (aa 1346-1708). There are at least fourteen utilized Ser/Thr phosphorylation sites and two Tyr phosphorylation sites. There are at least seven alternative splice variants are reported for Afadin. There is a 190 kDa isoform that shows a 12 aa insert after Arg1605 coupled to a four aa substitution for aa 1650-1824. Other isoforms contain scattered deletions of one to three aa coupled to major aa changes. Five isoforms share a deletion of aa 393-407, with four of these containing a 24 aa substitution for aa 1605-1824, a 73 aa substitution for aa 1747-1824, an 11 aa substitution for aa 680-1824, and a deletion of aa 1683-1746, respectively. A final isoform possesses a four aa substitution for aa 1650-1824. Over aa 217-392, human Afadin shares 94% aa sequence identity with mouse Afadin.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.