

MATERIAL DATA SHEET

Recombinant Human FAT10 Agarose

Cat. # UL-920

Human Leukocyte Antigen-F Associated Transcript 10 (FAT10), also known as Ubiquitin D (UBD), is a 165 amino acid (aa) member of the Ubiquitin-like family of proteins. Human FAT10 has a predicted molecular weight of 18.5 kDa and shares 69% aa sequence identity with mouse FAT10 (1). Human FAT10 mRNA is expressed as a single transcript in lymphoblastoid lines and dendritic cells, but more than one mRNA transcript has been identified for murine FAT10 (1,2). FAT10 can also be induced by IFN- γ and TNF- α in some cell lines (1). Structurally, FAT10 consists of two Ubiquitin-like domains that are connected by a short linker. Like Ubiquitin, FAT10 has a C-terminal glycine residue that can be used to form isopeptide bonds with target proteins. FAT10-conjugated proteins are targeted to the proteasome where the 26S Proteasome subunit S5a/Angiocrin binds to FAT10 and enables subsequent degradation of the conjugated protein (3). In addition to S5a/Angiocrin, FAT10 has been shown to interact with Huntingtin, Ataxin-1, MAD2, and NUB1L (4,5). FAT10 has been implicated in a number of biological processes such as cell cycle control, antigen presentation, and cytokine response (1,6-8). This protein is covalently coupled to agarose beads via primary amines allowing for a fully functional C-terminus. It is useful for isolation and capture of FAT10 interacting proteins and/or enzymes that have an affinity for this Ubiquitin-like protein.

Product Information

Quantity:	500 μ l
Source:	<i>E. coli</i> -derived Accession # O15205/Q96EC7 (NP_006389)
Stock:	0.5 ml resin supplied in a 1 mL total volume of 50 mM HEPES pH 7.5, 250 mM NaCl, 0.09% Sodium Azide

Use & Storage

Use:	FAT10 Agarose is ideal for the enrichment of known FAT10-interacting proteins as well as the discovery of novel FAT10-interacting proteins. We recommend equilibrating the resin by washing with 5-10 mL of your desired aqueous buffer.
Storage:	Do not freeze. <ul style="list-style-type: none">• 3 months from date of receipt, 2 to 8 °C as supplied.• 1 month, 2 to 8 °C under sterile conditions after opening.

Literature

References:

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3. Rani, N. *et al.* (2012) Nat. Commun. **3**:749.
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5. Nagashima, Y. *et al.* (2011) J. Biol. Chem. **286**:29594.
6. Ebstein, F. *et al.* (2012) Cell. Mol. Life Sci. **69**:2443.
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