

## MATERIAL DATA SHEET

### Recombinant Human Ataxin-3 Like

#### Cat. # E-343

Ataxin-3-Like protein, also known as Machado-Joseph Disease (MJD) Protein-1-Like, is a 355 amino acid deubiquitinating (DUB) enzyme with a predicted molecular weight of 41 kDa. Full-length Ataxin-3-L contains an N-terminal Josephin Domain, two Ubiquitin-Interacting-Motifs (UIM's) and a C-terminus consisting of a polyglutamine stretch and tail. Ataxin-3-L targets include Kruppel-Like Factor 5 (KLF5). KLF5 has been reported to promote breast cell proliferation, survival and tumorigenesis. Ubiquitination and proteasome-mediated degradation of KLF5 is antagonized by Ataxin-3-L, suggesting that inhibition of this DUB might provide a target for therapeutic intervention in breast cancer. Ataxin-3 and Ataxin-3-L have been reported to cleave both K48- and K63-linked poly-Ubiquitin in vitro, though enzyme activity in such assays is inefficient when using shorter chain lengths ( $\leq 6$ ). Ataxin-3-L activity can be efficiently monitored with K63-linked tetra-Ubiquitin Rhodamine ([UC-355](#)) substrate.

#### Product Information

|                  |   |
|------------------|---|
| <b>Quantity:</b> | 50 µg   |
| <b>MW:</b>       | 42 kDa  |
| <b>Source:</b>   | <i>Spodoptera frugiperda</i> , Sf21 (baculovirus)-derived<br>Accession # ATXN3L<br>Contains a C-terminal 6His tag |
| <b>Stock:</b>    | X mg/ml (X µM) in 50 mM HEPES pH 7.5, 100 mM NaCl, 10% (v/v) Glycerol,<br>1 mM TCEP                               |
| <b>Purity:</b>   | >95%, by SDS-PAGE under reducing conditions and visualized by Colloidal<br>Coomassie® Blue stain.                 |

#### Use & Storage

|                 |   |
|-----------------|---|
| <b>Use:</b>     | Recombinant Human His6-Ataxin-3-Like protein is a Ubiquitin-specific deconjugating enzyme. Reaction conditions will need to be optimized for each specific application. We recommend an initial His6-Ataxin-3-like concentration of 10-100 nM when utilizing K63-linked tetra-Ubiquitin Rhodamine ( <a href="#">UC-355</a> ). Higher concentrations may be required for other substrates. |
| <b>Storage:</b> | <b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"><li>• 12 months from date of receipt, -70 °C as supplied.</li><li>• 3 months, -70 °C under sterile conditions after opening.</li></ul>   |

## Literature

### References:

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5. Rodrigues, A.J. *et al.* (2007) FASEB J. **21**: 1126
6. Scaglione, K.M. *et al.* (2011) Mol. Cell. **43**: 599
7. Todi, S.V. *et al.* (2009) EMBO J. **28**: 372

***For research use only. Not for use in humans.***