

PRODUCT INFORMATION



UTX (human, recombinant)

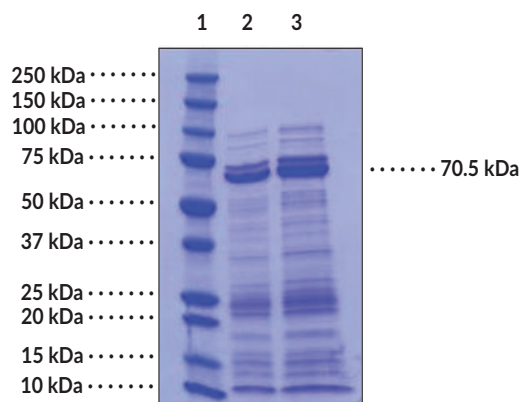
Item No. 10774

Overview and Properties

Synonyms: KDM6A, Ubiquitously Transcribed Tetratricopeptide Repeat X
Source: Recombinant N-terminal proprietary tagged protein expressed in *E. coli*
Uniprot No.: O15550
Molecular Weight: 70.5 kDa
Storage: -80°C (as supplied)
Stability: ≥6 months
Purity: *batch specific* (≥55% estimated by SDS-PAGE)
Supplied in: 50 mM Hepes, pH 7.4, containing 150 mM sodium chloride and 20% glycerol
Protein Concentration: *batch specific* mg/ml

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers
Lane 2: UTX (2 µg)
Lane 3: UTX (4 µg)

Representative gel image shown; actual purity may vary between each batch.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Ubiquitously transcribed tetratricopeptide repeat X (UTX) gene codes for the widely-expressed UTX protein. The UTX gene is localized on the X chromosome and is a homolog of the ubiquitously transcribed mouse Y chromosome (UTY) gene. UTX gene expression has been shown to evade X-chromosome inactivation.¹ The JmjC-containing UTX protein is a member of the hydroxylase family of enzymes, which are α -ketoglutarate-dependent Fe (II) oxygenases.² UTX plays a crucial role in epigenetic regulation of gene expression by catalyzing the demethylation of tri-methylated lysine 27 on histone H3.³ UTX works in opposition to the polycomb repressive complex 2 (PRC2) group protein EZH2, playing a role in cancers with aberrant H3K27 methylation.

References

1. Greenfield, A., Carrel, L., Pennis, D., *et al.* The UTX gene escapes X inactivation in mice and humans. *Hum. Mol. Genet.* **7(4)**, 737-42 (1998).
2. Hübner, M.R. and Spector, D.L. Role of H3K27 demethylases Jmjd3 and UTX in transcriptional regulation. *Cold Spring Harb. Symp. Quant. Biol.* **75**, 43-9 (2010).
3. Agger, K., Cloos, P.A.C., Christensen, J., *et al.* UTX and JMJD3 are histone H3K27 demethylases involved in HOX gene regulation and development. *Nat. Lett.* **449(7163)**, 731-4 (2011).

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