

PRODUCT INFORMATION



UHRF1 PHD domain (human recombinant)

Item No. 14777

Overview and Properties

Synonyms: E3 Ubiquitin-protein Ligase UHRF1, Inverted CCAAT Box Binding Protein of 90 kDa, Nuclear Protein 95, RING Finger Protein 106, Transcription Factor ICBP90, Ubiquitin-like PHD and RING Finger Domain-containing Protein 1

Source: Recombinant N-terminal GST-tagged protein expressed in *E. coli*

Amino Acids: 298-366

Uniprot No.: Q96T88

Molecular Weight: 35.5 kDa

Storage: -80°C (as supplied)

Stability: ≥1 year

Purity: *batch specific* (≥95% estimated by SDS-PAGE)

Supplied in: 50 mM Tris, pH 8.0, containing 150 mM sodium chloride and 20% glycerol

Endotoxin Testing: < 1.0 EU/μg, determined by the LAL endotoxin assay

Protein

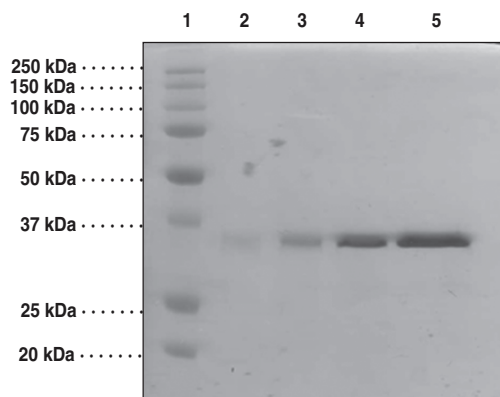
Concentration: 1.0 mg/ml

Activity: *batch specific* U/ml

Specific Activity: *batch specific* U/mg

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

Image



Lane 1: MW Markers

Lane 2: UHRF1 PHD domain (1 μg)

Lane 3: UHRF1 PHD domain (2 μg)

Lane 4: UHRF1 PHD domain (5 μg)

Lane 5: UHRF1 PHD domain (10 μg)

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
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Description

Recognition of epigenetic marks can be mediated by small modular protein units of ~50 amino acids called plant homeodomain (PHD) fingers. PHD fingers are zinc binding domains that have a Cys4-His-Cys3 motif and are found in more than 100 nuclear proteins that play a role in regulating chromatin.¹ PHD domains often work with other protein regions, such as bromodomains and Tudor domains, to recognize post-translational modifications in many proteins.¹ Ubiquitin-like with PHD and ring finger domains 1 (UHRF1) is a multidomain-containing nuclear protein known to bind chromatin and participate in the maintenance of DNA methylation.^{2,3} The SET and RING associated domain of UHRF1, also called the YDG motif, binds methyl cytosines, while trimethylated histone H3 lysine 9 (H3K9me3) and unmethylated histone H3 Arginine 2 (H3R2me0) are recognized by the tandem Tudor-like domains and the PHD domain, respectively.⁴⁻⁹ Some evidence suggests the tandem Tudor-like region and adjacent PHD domain may operate together to recognize H3K9me3.¹⁰ The combinatorial recognition of the histone tail region and hemi-methylated DNA functions to regulate gene silencing by directly interacting with DNA (cytosine-5)-methyltransferase 1.^{2,11-12} UHRF1 also possesses E3 ubiquitin ligase activity toward histone H3 and the tumor suppressor promyelocytic leukemia protein.^{7,13} This protein product contains the PHD finger region of UHRF1.

References

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