

## Active Recombinant Human HDAC4, GST-tagged

**Cat. No.** HDAC4-1357H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant human HDAC4 (612-end) was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Source</b>           | Sf9 Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>ProteinLength</b>    | 612 aa-end                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Description</b>      | HDAC4 or Histone Deacetylase 4 belongs to class II of the histone deacetylase/acuc/alpha family and is a component of the histone deacetylase complex that represses transcription when tethered to a promoter. HDAC4 does not bind DNA directly, but through transcription factors MEF2C and MEF2D. Binding of the N terminus of HDAC4 to MEF2C represses MEF2C transcription activity. The catalytic domain of HDAC4 interacts with HDAC3 via the transcriptional corepressor NCOR2. Suppression of HDAC4 binding to NCOR2 and to HDAC3 results in loss of enzymatic activity associated with HDAC4. |
| <b>Form</b>             | Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Bio-activity</b>     | 60 RLU/min/ng                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Molecular Mass</b>   | ~77 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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|                            |                                                                                                                                                                  |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>              | >95%                                                                                                                                                             |
| <b>Applications</b>        | HDAC Assay, Western Blot                                                                                                                                         |
| <b>Storage</b>             | Store at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. Avoid freeze/thaw cycles. |
| <b>Concentration</b>       | 0.1µg/µ                                                                                                                                                          |
| <b>GENE INFORMATION</b>    |                                                                                                                                                                  |
| <b>Gene Name</b>           | HDAC4 histone deacetylase 4 [ Homo sapiens ]                                                                                                                     |
| <b>Official Symbol</b>     | HDAC4                                                                                                                                                            |
| <b>Synonyms</b>            | HDAC4; histone deacetylase 4; HA6116; HD4; HDAC 4; HDAC A; HDACA; KIAA0288; histone deacetylase A; AHO3; BDMR; HDAC-4; HDAC-A;                                   |
| <b>Gene ID</b>             | 9759                                                                                                                                                             |
| <b>mRNA Refseq</b>         | NM_006037                                                                                                                                                        |
| <b>Protein Refseq</b>      | NP_006028                                                                                                                                                        |
| <b>MIM</b>                 | 605314                                                                                                                                                           |
| <b>UniProt ID</b>          | P56524                                                                                                                                                           |
| <b>Chromosome Location</b> | 2q37.3                                                                                                                                                           |
| <b>Pathway</b>             | Cell cycle, organism-specific biosystem; Endochondral Ossification, organism-specific                                                                            |

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biosystem; MicroRNAs in cardiomyocyte hypertrophy, organism-specific biosystem; NOTCH1 Intracellular Domain Regulates Transcription, organism-specific biosystem; Signal Transduction, organism-specific biosystem; Signaling by NOTCH, organism-specific biosystem; Signaling by NOTCH1, organism-specific biosystem;

#### Function

NAD-dependent histone deacetylase activity (H3-K14 specific); NAD-dependent histone deacetylase activity (H3-K9 specific); NAD-dependent histone deacetylase activity (H4-K16 specific); activating transcription factor binding; histone deacetylase activity; histone deacetylase activity; histone deacetylase activity (H3-K16 specific); histone deacetylase binding; hydrolase activity; potassium ion binding; protein binding; protein deacetylase activity; protein kinase binding; repressing transcription factor binding; contributes\_to sequence-specific DNA binding; transcription factor binding; contributes\_to transcription regulatory region DNA binding; zinc ion binding;