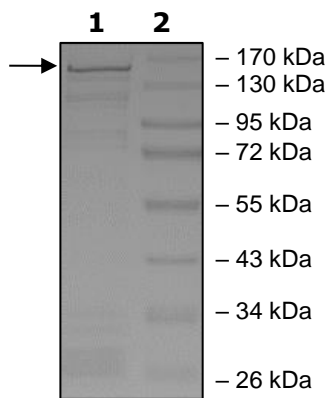


## Product Information

<b>Description:</b>	Recombinant human HDAC4 (histone deacetylase 4) encompassing amino acids 101-end. This construct contains a C-terminal GST-tag. The recombinant protein was affinity purified and is active.
<b>Background:</b>	HDAC4, or histone deacetylase 4, is a Class II member of the histone deacetylase family which is involved in lysine deacetylation. Lysine acetylation/deacetylation is a dynamic process involved in the regulation of a variety of cellular functions, similarly to phosphorylation/dephosphorylation. It interacts with MEF2C (myocyte-specific enhancer factor 2c) and MEF2D and this interaction allows regulation of gene expression. It also functions in multimeric protein complexes. HDAC4 is regulated by phosphorylation, SUMOylation and proteolytic cleavage, which influence the protein localization in the cell. It is involved in bone and muscle development, and vision. Dysfunction of HDAC4 seems to link to cancer in a context-dependent mode, but the mechanisms behind it are still unclear. It has been linked to multiple myeloma (MM) and acute myeloid leukemia (AML). The development of new inhibitors specifically targeting HDAC4, in a disease-specific context, and a better understanding of its modes of action may open newer avenues of HDAC4-linked diseases.
<b>Species:</b>	Human
<b>Construct:</b>	HDAC4 (101-end-GST)
<b>Concentration:</b>	0.05 mg/ml
<b>Expression System:</b>	Sf9
<b>Purity:</b>	70% (Purity calculation does not include co-purifying Glutathione-binding proteins.)
<b>Format:</b>	Aqueous buffer solution.
<b>Formulated In:</b>	50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM Glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, 25% glycerol
<b>MW:</b>	155 kDa
<b>Genbank Accession:</b>	NM_006037
<b>Stability:</b>	At least 6 months at -80°C.
<b>Storage:</b>	-80°C
<b>Instructions for Use:</b>	Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before opening. Aliquot into small volumes and flash freeze for long term storage. Avoid multiple freeze/thaw cycles.
<b>Specific Activity:</b>	80 RLU/min/mg
<b>Assay Conditions:</b>	HDAC4 activity was measured by using the HDAC-Glo I/II™ Activity Assay Kit (Promega #G6420). Reaction was initiated by mixing increasing concentrations of HDAC4 diluted in HDAC-Glo I/II™ Buffer with HDAC-Glo I/II™ Reaction Reagent. Prepare a serial dilution of HDAC4 in HDAC-Glo I/II™ Buffer. Prepare HDAC-Glo I/II™ Reaction Reagent by adding 10 ml of HDAC-Glo I/II™ Buffer to HDAC-Glo I/II™ Substrate Cake and 1 µl of Developer Reagent). The reaction was initiated by incubating equal volumes of diluted HDAC4 and HDAC-Glo I/II™ Reaction Reagent for 15 minutes at Room Temperature with gentle agitation. The plate was read in a GloMax plate reader (Promega # E7031). The Enzyme Specific Activity was calculated as follows: [( activity from reaction – activity from Blank) / (Reaction time in min) *(Enzyme amount in ng)]. A blank can be determined from a “no substrate” sample by replacing the enzyme solution with an equal volume of HDAC-Glo I/II™ Buffer.
<b>Applications:</b>	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

## Quality Control Data

### 4-20% SDS-PAGE Coomassie Staining



### Specific Activity

