HDAC2, FLAG-Tag Recombinant

Catalog: 50052
Lot: 140327-2

Product Information

Description:	Recombinant Human HDAC2 (histone deacetylase 2), full length, encompassing 1-488(end). This construct contains a C-terminal FLAG-tag. The recombinant protein was affinity purified.
Background:	HDAC2, or histone deacetylate 2, is a Class I 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. Abnormal levels of HDAC2 contribute to cancer progression via multiple mechanisms and can be used as a biomarker, for instance in colorectal cancer (CRC). HDAC2 overexpression leads to AKT phosphorylation and hepatocarcinogenesis or regulate expression of K^+-Cl^- cotransporter-2 and regulate pain in bone cancer. HDAC2 dysfunction has been linked to CRC, prostate cancer, bone, pancreatic and oral cancer, amongst others. Overexpression of HDAC2 contributes to chemoresistance to agents such as doxorubicin in CRC, and it has been shown that silencing HDAC2 can result in decreased activity of proteins such as AP-1 (activator protein 1), c-jun and c-fos. The use of combination therapy may be a potent therapeutical approach. HDAC-2 has also been linked to Parkinson's and Alzheimer's disease. The development of new inhibitors specifically targeting HDAC2, in a disease-specific context, may open newer avenues for cancer and HDAC2-linked diseases.
Species:	Human
Construct:	HDAC2 (1-488(end)-FLAG)
Concentration:	1.30 mg/ml
Expression System:	Sf9
Purity:	85%
Format:	Aqueous buffer solution.
Formulated In:	40 mM Tris-HCl, pH 8.0, 110 mM NaCl, 2.2 mM KCl, 20% glycerol, and 80 µg/ml FLAG peptide
MW:	56 kDa
Genbank Accession:	NM_001527
Stability:	At least 6 months at -80°C.
Storage:	-80°C
Instructions for Use:	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.
Specific Activity:	1020 pmol/min/µg
Assay Conditions:	Assay was performed in 25 mM Tris/HCl, pH 8.0, 137 mM NaCl, 2.7 mM KCl, 1 mM $MgCl_2$, and 0.1 mg/ml BSA, in the presence of 20 µM Fluorogenic HDAC substrate 3 (#50037), and 3.1-200 ng of HDAC2, FLAG-Tag Recombinant. The reaction was incubation for 30 minutes at 37°C, followed by fluorophore development for 15 minutes at room temperature.
Applications:	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

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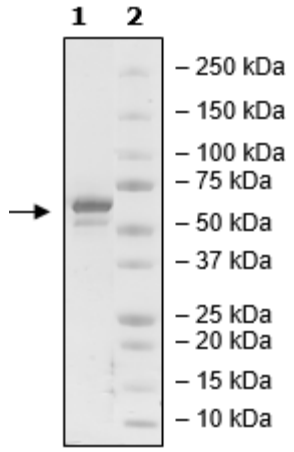
Quality Control Data

4-20% SDS-PAGE Coomassie Staining



HDAC2 Activity