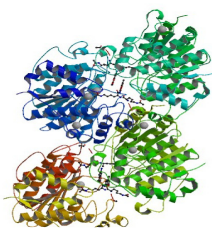
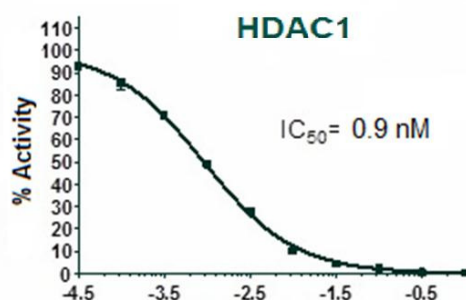


Acetylation



Protein acetylation induced by histone acetyltransferases (HATs) is associated with gene transcription, while removal of acetyl groups by histone deacetylase (HDAC) or sirtuin (SIRT) activity is associated with chromatin condensation and gene silencing. HDAC inhibitors are potent inducers of growth arrest, differentiation, and apoptosis, and are used clinically for the treatment of depression, epilepsy and schizophrenia. The association of SIRT1 activity with aging and metabolic disorders, as well as numerous studies linking HDACs to various leukemias and lymphomas make deacetylation inhibitors among the most promising targets for drug discovery. BPS Bioscience offers a complete panel of HDAC and sirtuin reagents, including enzymes, substrates, and assay kits.



Determination of the IC_{50} of TSA on HDAC1 (Cat. # 50051), measured with the Fluorogenic HDAC Assay Kit (Cat. # 50033).

HDAC Substrates

Substrate	Catalog #	Amount
Fluorogenic HDAC Substrate 1	50032	500 nmol
Fluorogenic HDAC Substrate 2 (green)	50038	250 nmol
Fluorogenic HDAC Substrate 3	50037	250 nmol
Fluorogenic HDAC Class 2a Substrate 1	50040	250 nmol
Fluorogenic HDAC Class 2a Substrate 2 (green)	50042	250 nmol
Fluorogenic Deacetylated Substrate Standard	50035	250 nmol
Fluorogenic SIRT Substrate	50080	500 nmol
Fluorogenic Sirtuin 5 Substrate	50126	250 nmol

HDAC & SIRT Assay Kits

The Fluorogenic HDAC Assay Kits are designed to measure histone deacetylase activity for screening and profiling applications. A unique fluorogenic substrate and developer combination eliminates dealing with the radioactivity, extraction, and chromatography aspects of traditional assays. Instead, these homogeneous assays are performed in a single 96-well plate, without time-consuming washes, for rapid and sensitive detection of HDAC activity.

Kits and Related Reagents	Cat #	Size
HDAC Assay Kit, Fluorogenic	50033	96 rxns
HDAC Assay Kit, Fluorogenic (Green)	50034	96 rxns
HDAC Class 2a Assay Kit, Fluorogenic	50041	96 rxns
HDAC1 Assay Kit, Fluorogenic	50061	96 rxns
HDAC1 Assay Kit, Kinetic	53001	96 rxns
HDAC2 Assay Kit, Fluorogenic	50062	96 rxns
HDAC2 Assay Kit, Kinetic	53002	96 rxns
HDAC3 Assay Kit, Fluorogenic	50073	96 rxns
HDAC3 Assay Kit, Kinetic	53003	96 rxns
HDAC4 Assay Kit, Fluorogenic	50064	96 rxns
HDAC5 Assay Kit, Fluorogenic	50065	96 rxns
HDAC6 Assay Kit, Fluorogenic	50076	96 rxns
HDAC7 Assay Kit, Fluorogenic	50067	96 rxns
HDAC8 Assay Kit, Fluorogenic	50068	96 rxns
HDAC9 Assay Kit, Fluorogenic	50069	96 rxns
SIRT1 (Sir2) Assay Kit, Fluorogenic	50081	96 rxns
SIRT2 Assay Kit, Fluorogenic	50087	32 rxns
	50082	96 rxns
SIRT3 Assay Kit, Fluorogenic	50088	32 rxns
	50083	96 rxns
SIRT5 Assay Kit, Fluorogenic	50085	96 rxns
SIRT6 Assay Kit, Chemiluminescent	50086	96 rxns
HDAC Assay Developer (2x)	50030	6 ml
HDAC Assay Developer, Kinetic	53029	6ml
SIRT Assay Developer (2x)	50089	6 ml
HDAC Assay Buffer	50031	20 ml
SIRT Assay Buffer	50090	20 ml

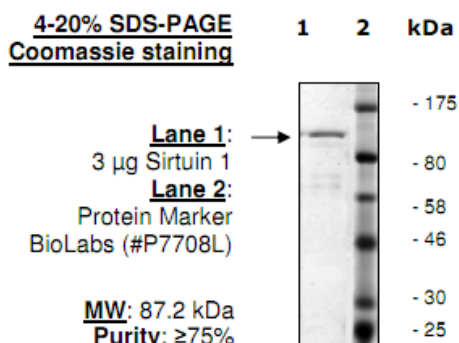
HAT Assay Kits

The HAT assay kits are offered in a variety of different formats (chemiluminescent, fluorogenic, or AlphaLISA[®]) to match your research needs.

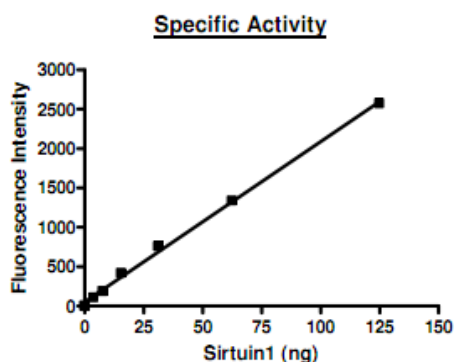
Kits and Related Reagents	Cat #	Size
GCN5 Assay Kit, Chemiluminescent	50079	96 rxns
GCN5 Assay Kit, Fluorogenic	50091	96 rxns
P300 Assay Kit, Chemiluminescent	50077	96 rxns
P300 Assay Kit, Fluorogenic	50092	96 rxns
P300 Assay Kit, Homogeneous	50078	384 rxns
HAT Assay Buffer	50095	20 mL
HAT Stop Solution	50096	20 mL

HDAC Enzymes

BPS Bioscience manufactures a complete line of all HDAC and SIRT enzymes. These highly active enzymes are suitable for enzymatic profiling, inhibitor screening assays, and drug discovery.



Purity of Sirt1 enzyme, Cat. # 50012



Activity of Sirt1 enzyme, Cat. # 50012

Enzyme	Catalog #	Amount
pf-HDAC1 (malarial)	50063	20 µg
HDAC1 (human)	50051	50 µg
HDAC2 (HIS-tag, human)	50002	50 µg
HDAC2 (FLAG-tag, human)	50052	50 µg
HDAC3/NcoR2 (human)	50003	50 µg
HDAC4 (human)	50004	10 µg
HDAC5 (catalytic domain)	50005	10 µg
HDAC5 (full length, human)	50045	5 µg
HDAC6 (GST-tag, human)	50006	50 µg
HDAC6 H216A (human)	50046	50 µg
HDAC6 H611A (human)	50066	50 µg
HDAC7 (human)	50007	10 µg
HDAC8 (human)	50008	50 µg
HDAC9 (human)	50009	10 µg

Enzyme	Catalog #	Amount
HDAC10 (GST-tag, human)	50010	50 µg
HDAC10 (FLAG-tag, human)	50060	50 µg
HDAC11 (human)	50011	50 µg
HDAC11, untagged	50021	10 µg
Sirtuin 1 (human)	50012	100 µg
Sirtuin 2 (human)	50013	100 µg
Sirtuin 3 (human)	50014	100 µg
Sirtuin 4 (human)	50015	100 µg
Sirtuin 5 (human)	50016	100 µg
Sirtuin 6 (human)	50017	100 µg
Sirtuin 7 (human)	50018	100 µg
NcoR2/SMRT (human)	50020	50 µg

Acetyltransferases (HATs)

Enzyme	Catalog #	Amount
ATAT1 Enzyme	50072	50 µg
GCN5 (KAT2A) Enzyme	50074	50 µg
P300 (KAT3B) Enzyme	50071	50 µg

HDAC Inhibitors

Chemical inhibitors of HDACs have been shown to inhibit tumor cell growth and induce differentiation and cell death. BPS Bioscience offers a number of HDAC inhibitors for screening small molecule activity.

Inhibitor	Catalog #	Amount
CBHA	27204	5 mg
Chidamide	27202	1 mg
EX-527	27103	1 mg
HC Toxin	27209	500 µg
s-HDAC-42	27208	1 mg
HNHA	27206	10 mg
M344	27203	5 mg
MS-275 (Entinostat)	27011	25 mg
Oxamflatin	27201	1 mg
SAHA (Vorinostat)	27006	100 mg
	27007	10 mg
4-iodo-SAHA	27205	50 mg
Scriptaid	27200	1 mg
Suberohydroxamic Acid (SBHA)	27210	100 mg
Trichostatin A	27102	10 mg
Tubastatin A	27108	10 mg
Valproic Acid	27207	10 g



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