

# Erasers - Proteins & Antibodies

## EPIDGENETIC ERASERS

|                                      |
|--------------------------------------|
| Histone Deacetylases (HDACs)         |
| Histone Demethylases (HDMs)          |
| Hypoxia-Inducible Factors (HIFs)     |
| Protein Tyrosine Phosphatases (PTPs) |
| Sirtuins (SIRTs)                     |
| Ubiquitin Specific Proteases         |

**Epigenetic erasers** are key players in the removal of “epigenetic signatures” or post translational modifications on histones. These epigenetic reprogramming events are required during multiple developmental stages. BioVision is proud to provide a multitude of epigenetic erasers, some of which are **potential targets for cancer therapeutics**.

## HISTONE DEACETYLASES (HDACs)

The balance of histone acetylation & deacetylation plays a critical role in transcription regulation. HDAC activity is associated with the gene silencing part of this regulation. Alteration in expression and mutation in HDAC structure has been associated with tumour development, making HDACs a cancer therapeutic target.

### BioVision's Key HDACs Recombinant Proteins

| Protein                  | Cat. No | Sizes                 |
|--------------------------|---------|-----------------------|
| HDAC3, human recombinant | 7613    | 250 units, 1000 units |
| HDAC6, human recombinant | 7534    | 10 µg                 |
| HDAC8, human recombinant | 7618    | 20 µg, 100 µg, 1 mg   |

### BioVision's Key HDACs Antibodies

| Antibody                 | Cat. No. | Sizes         |
|--------------------------|----------|---------------|
| HDAC Family Antibody Set | K333     | 11 x 30 µg    |
| HDAC1 Antibody           | 3601     | 100 µg        |
| HDAC10 Antibody          | 3610     | 100 µg        |
| HDAC11 Antibody          | 3611P    | 100 µg        |
| HDAC2 Antibody           | 3602     | 100 µg        |
| HDAC3 Antibody           | 6603     | 30 µg, 100 µg |
| HDAC3 Antibody           | 3603     | 100 µg        |
| HDAC4 Antibody           | 3604     | 100 µg        |
| HDAC4 Antibody           | 3604A    | 100 µg        |
| HDAC5 Antibody           | 3605     | 100 µg        |
| HDAC6 Antibody           | 3606     | 100 µg        |
| HDAC7 Antibody           | 3607     | 100 µg        |
| HDAC8 Antibody           | 3608     | 100 µg        |
| HDAC9 Antibody           | 3609     | 100 µg        |

## HISTONE DEMETHYLASES (HDMs)

The balance of histone acetylation & deacetylation plays a critical role in transcription regulation. HDAC activity is associated with the gene silencing part of this regulation. Alteration in expression and mutation in HDAC structure has been associated with tumour development, making HDACs a cancer therapeutic target.

### BioVision's Key HDMs Recombinant Proteins

| Protein  | Cat. No. | Sizes        |
|--|----------|--------------|
| JMJD2A Tudor Domains (888-1023 aa) (GST-tagged), Human recombinant | 7678     | 20 µg, 50 µg |
| JMJD6 (2-403 aa) (GST-tagged), Human recombinant                   | 7679     | 20 µg, 50 µg |

### BioVision's Key HDMs Antibodies

| Antibody                    | Cat. No. | Sizes      |
|-----------------------------|----------|------------|
| HDAC Family Antibody Set    | K333     | 11 x 30 µg |
| Jarid1b polyclonal antibody | 6854     | 50 µl      |
| Jarid1c polyclonal antibody | 6855     | 50 µl      |
| JARID2 polyclonal antibody  | 6856     | 50 µl      |
| JMJD1A Antibody             | 3273     | 100 µg     |
| JMJD1A Blocking Peptide     | 3273BP   | 50 µg      |
| JMJD2a polyclonal antibody  | 6851     | 25 µg      |
| JMJD2b polyclonal antibody  | 6852     | 50 µl      |
| JMJD2c polyclonal antibody  | 6853     | 50 µl      |
| KDM1B polyclonal antibody   | 6847     | 50 µl      |
| LSD1 (aa 400-450) Antibody  | 6116     | 50 µg      |
| LSD1 (aa 450-500) Antibody  | 6117     | 50 µg      |
| LSD1 (aa 800-850) Antibody  | 6118     | 50 µg      |
| PHF8 polyclonal antibody    | 6850     | 25 µg      |

## PROTEIN TYROSINE PHOSPHATASES (PTPs)

These play a role in dephosphorylating histone proteins and play an important role in DNA damage repair pathways and microtubule organization.

### BioVision's Key PTPs Recombinant Proteins

| Protein                      | Cat. No. | Sizes  |
|------------------------------|----------|--------|
| Human Recombinant DUSP3      | 6371     | 100 µg |
| Human Recombinant PP2C alpha | 6303     | 100 µg |
| Human Recombinant PPM1G      | 6369     | 50 µg  |
| Human Recombinant PPP1CA     | 6370     | 10 µg  |
| Human Recombinant PTP1B      | 6301     | 100 µg |
| Human Recombinant SHP-1      | 6302     | 100 µg |

## BioVision's Key PTPs Antibodies

| Antibody                        | Cat. No. | Sizes  |
|---------------------------------|----------|--------|
| PTP1B Antibody                  | 3171     | 100 µg |
| PTP1B Antibody                  | 3174     | 100 µg |
| PTP1B Antibody (Clone 107AT531) | 3122     | 100 µg |

## SIRTUINS (SIRTs)

There are seven human Sirtuins, also known as class III HDACs, which have been designated SIRT1 to SIRT7. Each is involved in various post-translational modifications by utilizing NAD dependent deacetylases and APD-ribosyltransferase activities. They have been implicated in influencing a wide range of cellular processes like aging, transcription, apoptosis, inflammation and stress resistance.

## BioVision's Key SIRTs Recombinant Proteins

| Protein  | Cat. No. | Sizes              |
|--|----------|--------------------|
| SIRT1 (193-747 aa) (GST-tagged), Human recombinant | 7264     | 25 units, 50 units |
| SIRT4 (GST-tagged), Human recombinant              | 7673     | 25 µg, 50 µg       |
| SIRT5 (GST-tagged), Human recombinant              | 7674     | 20 µg, 50 µg       |
| SIRT7 (2-400 aa) (His-tagged), Human recombinant   | 7675     | 20 µg, 50 µg       |
| SIRT6, human recombinant                           | 7578     | 10 µg              |
| Human Recombinant SHP-1                            | 6302     | 100 µg             |

## BioVision's Key SIRTs Antibodies

| Antibody       | Cat. No. | Sizes         |
|----------------|----------|---------------|
| SIRT1 Antibody | 6137     | 100 µg        |
| SIRT2 Antibody | 6138     | 100 µg        |
| SIRT2 Antibody | 6632     | 100 µg        |
| SIRT3 Antibody | 3223     | 100 µg        |
| SIRT4 Antibody | 3224     | 100 µg        |
| SIRT5 Antibody | 3225     | 100 µg        |
| SIRT6 Antibody | 6692     | 30 µg, 100 µg |
| SIRT7 Antibody | 6107     | 50 µg         |
| SIRT7 Antibody | 3099     | 100 µg        |

## UBIQUITIN-SPECIFIC PROTEASES (DUBs)

DUBs cleave the ubiquitin from proteins and other molecules. Ubiquitin is attached to proteins regulate their degradation, co-ordinate their cellular location and modulate protein-protein interaction. DUBs reverse these effects. They can be classified into 2 types - cysteine proteases and metallo-proteases. DUBs play an important role in physiological processes involved in diseases like cancer and neurological disorders.

## BioVision's Key DUBs Recombinant Proteins

| Protein  | Cat. No. | Sizes               |
|--|----------|---------------------|
| Active SIRT2, human recombinant                    | 7698     | 10 µg , 50 µg, 1 mg |
| Active SIRT6 (GST-tagged), human recombinant       | 7697     | 20 µg, 100 µg, 1 mg |
| Active SIRT6 (His-tagged), human recombinant       | 7699     | 20 µg, 100 µg, 1 mg |
| Active SIRT7, human recombinant                    | 7846     | 10 µg, 50 µg        |
| SIRT1 (193-747 aa) (GST-tagged), Human recombinant | 7264     | 25 units, 50 units  |
| SIRT4 (GST-tagged), Human recombinant              | 7673     | 25 µg, 50 µg        |
| SIRT5 (GST-tagged), Human recombinant              | 7674     | 20 µg, 50 µg        |
| SIRT6, human recombinant                           | 7578     | 10 µg               |
| SIRT7 (2-400 aa) (His-tagged), Human recombinant   | 7675     | 20 µg, 50 µg        |

## BioVision's Key DUBs Antibodies

| Antibody                       | Cat. No. | Sizes  |
|--------------------------------|----------|--------|
| UCHL1 Polyclonal Antibody      | 6130     | 50 µg  |
| UCHL3 Polyclonal Antibody      | 6128     | 50 µg  |
| UCHL5 Polyclonal Antibody      | 6129     | 50 µg  |
| UHRF1 Polyclonal Antibody      | 6144     | 100 µg |
| UHRF2 Polyclonal Antibody      | 6145     | 100 µg |
| USP1 Polyclonal Antibody       | 6140     | 100 µg |
| USP14 Polyclonal Antibody      | 6134     | 50 µg  |
| USP15 Polyclonal Antibody      | 6135     | 50 µg  |
| USP2 Polyclonal Antibody       | 6141     | 100 µg |
| USP25 Polyclonal Antibody      | 6143     | 100 µg |
| USP3 Polyclonal Antibody       | 6142     | 100 µg |
| USP34 Core Polyclonal Antibody | 6136     | 50 µg  |
| USP4 Polyclonal Antibody       | 6131     | 50 µg  |
| USP5 Polyclonal Antibody       | 6132     | 50 µg  |
| USP7 Antibody                  | 3747     | 100 µg |
| USP8 Polyclonal Antibody       | 6133     | 50 µg  |

## REALTED PRODUCTS

| Category       | Product Type                               |
|----------------|--|
| Histones Core  | Histones, Linker Histones                  |
| Reader Domains | Bromodomains, Tudor Domains, MBT Domains   |
| Writer Enzymes | DNMTs, HATs, PARPs, PRMTs, PKMTs, and more |