FLUOR DE LYS® -H4-AcK16 deacetylase substrate

The deacetylated state of lysine-16 of histone H4 (H4-K16) is thought to be a critical factor in determining regions of chromatin silencing. Conversely, acetylation of lysine-16 can be associated with increased transcription, such as that due to dosage compensation from the X-chromosome of male *Drosophila*. The acetylated H4 lysine-16 is preferentially deacetylated by yeast Sir2 *in vitro* and *in vivo*. FLUOR DE LYS®-H4-AcK16 is a fluorogenic, acetylated peptide substrate suitable for various lysine deacetylases, including the HDAC activities in HeLa nuclear extract, HDAC8, SIRT1 (human Sirtuin 1) and SIRT2 (human Sirtuin 2). It is based on residues from histone H4 (12-16, Lys-Gly-Gly-Ala-Lys(Ac)) and was the preferred substrate for both SIRT1 and SIRT2 within a group patterned on acetylation sites in histone H3 and histone H4 N-terminal tails. FLUOR DE LYS®-H4-AcK16 is deacetylated by SIRT1 (BML-SE239) at a rate of more than 6-fold and by SIRT2 (Prod. No. BML-SE251) at a rate of more than 40-fold those achieved with the acetylated lysine substrate, FLUOR DE LYS® (Prod. No. BML-KI104; acetylated substrates both at 25 µM, 500 µM NAD). Must be used in conjunction with FLUOR DE LYS® Developer (Prod. No. BML-KI105). Sufficient for 100-200 assays (50-100 µM substrate).

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BML-KI174-0005	0.5µmol

Manuals, SDS & CofA View Online »

Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended.
Long Term Storage	-80°C
Shipping	Dry Ice

Regulatory Status

RUO - Research Use Only

Product Details

Formulation	Supplied as a 5 mM solution (100 µl) in HDAC Assay Buffer.
MW	298.4
Purity	≥95%

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