

Molecular Formula: $C_{17}H_{22}N_2O_3$ **Molecular Weight:**

302.4 g/mol

Purity:

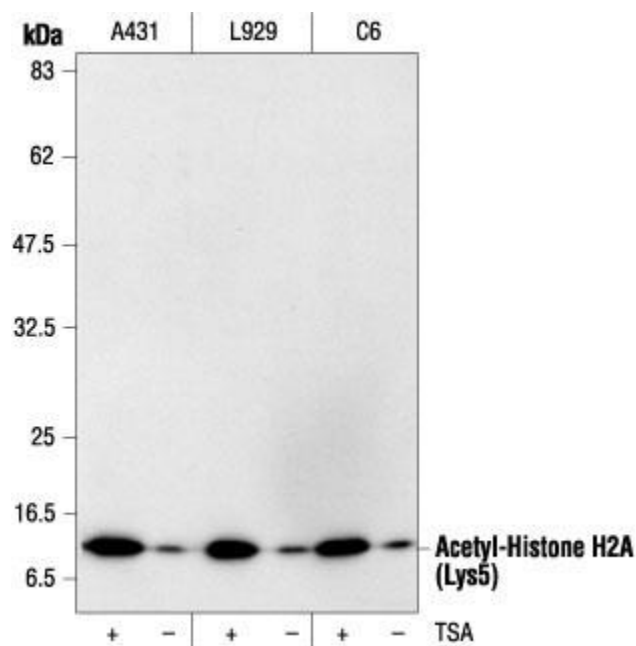
>99%

Directions for Use

Store at -20 °C in the dark. Trichostatin A is supplied as a lyophilized powder. For a 4mM stock (10.000X), reconstitute in 826 µL ethanol. Treat cells with 400 nM trichostatin A for 12-18 hours.

Precautions: This compound is only sold for use in extremely dilute solutions for biological research. No other use is intended and any other use involves substantial hazards. This compound should never be handled in powder or aerosol form or in any other form susceptible to uncontrolled release in the laboratory, even in very small quantities.

Western Blotting



Western blot analysis of extracts from various cell lines, untreated or TSA-treated (400 nM for 12 hours), using Acetyl-Histone H2A (Lys5) Antibody.

Background

Trichostatin A is an antifungal antibiotic derived from *Streptomyces* that inhibits mammalian histone deacetylases (1,2). When used at nanomolar concentrations, trichostatin A causes the accumulation of acetylated histones in a quite specific

and reversible manner (2,3). Trichostatin A has also been shown to inhibit both G1- and G2-phases of the mammalian cell cycle and has been tested for use as a potential anticancer agent (2-5).

1. Tsuji, N. et al. (1976) *J. Antibiot.* 29, 1-6.
2. Yoshida, M. et al. (1990) *J. Biol. Chem.* 265, 17174-17179.
3. Kijima, M. et al. (1993) *J. Biol. Chem.* 268, 22429-22435.
4. Ailenberg, M. and Silverman, M. (2002) *Biochem. Biophys. Res. Commun.* 298, 110-115.
5. Maecker, H. et al. (2002) *Cancer Cell* 2, 139-148.