Histone Demethylase (HDM) Fluorescent Activity Kit

Cat. No. KITZ-055 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Histone Demethylase (HDM) Fluorescent Activity Kit is designed to quantitatively measure the enzymatic activity of formaldehyde-producing enzymes such as Histone Demethylases. The kit is unique in that the product of these enzymatic demethylation reactions, formaldehyde, is quantitated directly by a fluorescent product. No separation or washing is required. The kit has been validated for both LSD1 and JMJD2A Histone Demethylases (HDMs). The kit allows any enzymatic reaction generating formaldehyde to be measured. The end user will have to provide the demethylase system and any cofactors, etc. necessary for activity, along with any test inhibitors or activators. The kit allows end users to produce HDM activity in many in vivo and in vitro systems and then determine the activity by measuring formaldehyde generation.
Size	2 *96 Well Plate Kit
Storage	All components of this kit should be stored at 4°C, except the cell lysis buffer which should be stored at -20°C, until the expiration date of the kit.
Shipping	Ice pack
Kit Components	1. Black Half Area 96 Well Plate: 2 plates; 2. LSD1-type Assay Buffer: 60 mL; A phosphate buffer containing detergents and stabilizers. 3. JMJD2A-type Assay Buffer: 60 mL; A HEPES buffer containing stabilizers.

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	4. Formaldehyde Standard: 500 µL; 2,000 µM formaldehyde solution in a special stabilizing solution. Outer container has formaldehyde absorbing pad. The standard is stable if kept tightly sealed. KEEP TIGHTLY SEALED. 5. Formaldehyde Reagent: 5 mL; Special formulation of reagents to detect formaldehyde in solution. Contains 0.09% sodium azide as a preservative. 6. Demethylase Cell Lysis Buffer: 100 mL; A Tris based buffer containing detergents. Store Frozen as this buffer contains no preservatives. 7. Plate Sealers: 2 Each;
Materials Required but Not Supplied	1. Supply of distilled or deionized water free of formaldehyde. 2. Repeater pipet with disposable tips capable of dispensing 25 µL. 3. Incubators capable of accurately maintaining 30°C and 37°C. 4. Demethylase enzyme samples. A source of LSD1-type or Jumonji-type demethylase, along with any cofactors, enzyme substrates, inhibitors, and/or activators. 5. Fluorescence 96 well plate reader capable of reading fluorescent emission at 510 nm, with excitation at 450 nm. Set plate parameters for a 96-well Corning Costar 3694 plate.

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