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DATA SHEET

Reagent:	Integrase Inhibitor (118-D-24)
Catalog Number:	9957
Lot Number:	040132
Release Category:	E
Provided:	20 mg
Chemical Name:	4-[3-(azidomethyl)phenyl]-2-hydroxy-4-oxo-2-butenoic acid
Empirical Formula:	$C_{11}H_9N_3O_4$
Molecular Weight:	247.2
CAS Num:	544467-07-4
Solubility:	Soluble in common organic solvents; insoluble in water.
Mechanical Action:	Azido-containing diketo acid derivatives are potent inhibitors of the strand transfer reaction catalyzed by HIV-1 integrase. It has been found that in the presence of azido-containing diketo acid derivatives, the frequency of 2-LTR-circle formation was increased without affecting total viral cDNA synthesis (*J. Virol.* **78**:3210, 2004).
Recommended Storage:	Room temperature. Once resuspended, working aliquots can be stored at −20°C.
Contributor:	NIAID, DAIDS

References: Svarovskaia ES, Barr R, Zhang X, Pais GC, Marchand C, Pommier Y, Burke TR Jr, Pathak VK. Azido-containing diketo acid derivatives inhibit human immunodeficiency virus type 1 integrase in vivo and influence the frequency of deletions at two-long-terminal-repeat-circle junctions. *Journal of Virology.* **78**:3210-22, 2004. Zhang X, Pais GC, Svarovskaia ES, Marchand C, Johnson AA, Karki RG, Nicklaus MC, Pathak VK, Pommier Y, Burke TR. Azido-containing aryl beta-diketo acid HIV-1 integrase inhibitors. *Bioorg Med Chem Lett.* **13**:1215-1219, 2003.

NOTE: Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: Integrase Inhibitor (118-D-24) from NIAID, DAIDS (cat# 9957)."

The synthesis, chemical structure, and inhibitory activity of this compound against HIV-1 integrase was published by X. Zhang, et al. in Bioorg Med Chem Lett. **13**:1215-1219, 2003 (referred to as compound 11 therein). Its chemical name is 4-[3-(azidomethyl)phenyl]-2-hydroxy-4-oxo-2-butenoic acid.

This compound is limited to 40 mg per requester per year.

Recipient agrees that the reagent (Integrase Inhibitor (118-D-24)) use is permitted only as a standard for in vitro and/or studies in animals for inhibition of HIV replication.

Last Updated July 24, 2018