

2'-Deoxyadenosine-d2

<http://www.lumiprobe.com/p/2-deoxyadenosine-d2>

2'-Deoxyadenosine-(ribose-5,5-d2) is a deuterated form of the nucleoside 2'-deoxyadenosine and is intended for use as an internal standard for the quantification of deoxyadenosine by LC-MS/MS. Deoxyadenosine is a nucleoside that is converted to deoxyinosine by the enzyme adenosine deaminase and is a good marker of Adenosine deaminase (ADA) deficiency. Screening specific for ADA deficiency can be performed by detection of elevated levels of adenosine (Ado) and deoxyadenosine (dAdo) by tandem mass spectrometry. The ADA deficiency phenotypic spectrum includes typical early-onset severe combined immunodeficiency (ADA-SCID), diagnosed in infancy (about 80% of individuals), and less severe delayed or late-onset combined immunodeficiency (ADA-CID), diagnosed in older children and adults.



Structure of 2'-Deoxyadenosine-d2

General properties

Appearance: white powder

Molecular weight: 253.26

Molecular formula: $C_{10}H_{11}D_2N_5O_3$

Solubility: in water

Quality control: NMR 1H and HPLC-MS (95+ %, D: 98+ %)

Storage conditions: 24 months after receipt at $-20^{\circ}C$ in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.

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