

### **Lumiprobe Corporation**

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## Valine-d7

# http://www.lumiprobe.com/p/dl-valine-d7

Valine is an essential glucogenic branched-chain amino acid (BCAA). A high level of valine could be a marker of Maple syrup urine disease (MSUD), a disorder characterized by progressive ketoacidosis, caused by a deficiency in branched-chain dehydrogenase, the enzyme that catabolizes valine, isoleucine, and leucine. A low level of valine could be a sign of Crohn's disease, celiac disease or hepatic encephalopathy.

D,L-Valine-d7 is the deuterium-labeled valine and is intended for use as an analytical reference standard in LC-MS. For correct measurement of valine in blood with mass spectrometry one should use valine-d7 as an internal standard.

### Structure of Valine-d7

### **General properties**

Appearance: white powder

Molecular weight: 124.19 Molecular formula:  $C_5H_4D_7NO_2$ Solubility: in water

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

Storage conditions: 24 months after receival at -20°C in the dark. Transportation: at room temperature for up to 3 weeks.

Desiccate.

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efficacy in food, drug, medical device, cosmetic, commercial or any other use. Supply does not express or imply authorization to use for any other purpose, including, without limitation, in vitro diagnostic purposes, in the manufacture of food or pharmaceutical products, in medical devices or in cosmetic

products.