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3-(5-methyl-1H-pyrazol-3-yl)propionic acid-d6 (MPP)

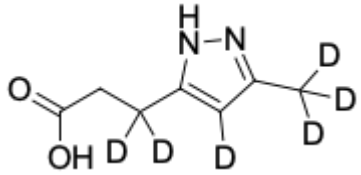
http://www.lumiprobe.com/p/sa-succinylacetone-pyrazol-d6

Succinylacetone (abbreviated as SA) is a product of tyrosine catabolism, and an inhibitor of heme biosynthesis. Succinylacetone testing in dried neonatal blood spots, followed by quantitation of SA in blood or urine in high-risk neonates, has excellent sensitivity and specificity for the diagnosis of tyrosinemia type 1 [1].

Succinylacetone is a reactive diketone which reacts with the amino groups of peptides and proteins present in the blood. Therefore, extraction of the bound SA requires its conversion into a product suitable for its extraction and quantification. This is effected by means of hydrazine treatment which leads to a conversion of succinylacetone to this pyrazole derivative.

This pyrazole derivative is a deuterated derivative is used as an analytical standard in the measurement of succinylacetone (SA) in dried blood spot samples.

[1] Kehar M., Sen Sarma M., Seetharaman J., Jimenez Rivera C., Chakraborty P. Decoding hepatorenal tyrosinemia type 1: Unraveling the impact of early detection, NTBC, and the role of liver transplantation. Can Liver J. 2024. 7(1). P.54-63.



Structure of 3-(5-methyl-1H-pyrazol-3-yl)propionic acid-d6 (MPP)

General properties

Appearance:	white solid
Molecular weight:	160.21
Molecular formula:	$C_7H_4D_6N_2O_2$
Solubility:	in water
Quality control:	NMR ^1H 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.
Legal statement:	This Product is offered and sold for research purposes only. It has not been tested for safety and 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.