

# PRODUCT INFORMATION



## Isobutyryl-Coenzyme A (sodium salt)

Item No. 27867

**Formal Name:** S-(2-methylpropanoate) coenzyme A, sodium salt

**Synonym:** Isobutyryl-CoA

**MF:**  $C_{25}H_{42}N_7O_{17}P_3S \cdot XNa$

**FW:** 837.6

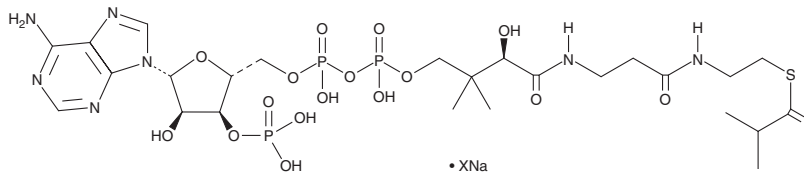
**Purity:**  $\geq 90\%$

**UV/Vis.:**  $\lambda_{max}$ : 258 nm

**Supplied as:** A crystalline solid

**Storage:**  $-20^{\circ}C$

**Stability:**  $\geq 4$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Isobutyryl-coenzyme A (isobutyryl-CoA) (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the isobutyryl-CoA (sodium salt) in the solvent of choice, which should be purged with an inert gas. Isobutyryl-CoA (sodium salt) is slightly soluble in ethanol.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of isobutyryl-CoA (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of isobutyryl-CoA (sodium salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Isobutyryl-CoA is a short-chain branched acyl CoA. Isobutyryl-CoA is a substrate for isobutyryl-CoA dehydrogenase (IBDH) in the catabolism of valine and an intermediate in the synthesis of isobutyryl-L-carnitine, which accumulates in IBDH deficiency.<sup>1,2</sup>

### References

1. Nguyen, T.V., Andresen, B.S., Corydon, T.J., *et al.* Identification of isobutyryl-CoA dehydrogenase and its deficiency in humans. *Mol. Genet. Metab.* **77**(1-2), 68-79 (2002).
2. Roe, C.R., Cederbaum, S.D., Roe, D.S., *et al.* Isolated isobutyryl-CoA dehydrogenase deficiency: An unrecognized defect in human valine metabolism. *Mol. Genet. Metab.* **65**(4), 264-271 (1998).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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