

## Lactoyl phenylalanine, Anorexigenic circulating metabolite

Catalog	Unit
TBI5713-5MG	5 mg
TBI5713-25MG	25 mg

### Product Details

**Formal Name:** N-[(2S)-2-hydroxy-1-oxopropyl]-L-phenylalanine

**Alternate Names:** Lac-Phe; N-lactoyl-phenylalanine

**Molecular Formula:** C<sub>12</sub>H<sub>15</sub>NO<sub>4</sub>

**Formula Weight:** 237.3

**CAS Number:** 183241-73-8

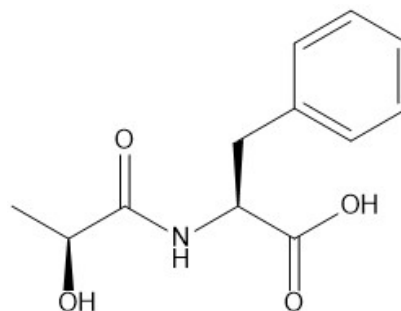
**Purity:** >98%

**Formulation:** Powder

**Solubility:** Soluble in DMSO (at least 50 mg/ml)

**Storage:** -20°C

**Stability:** ≥ 2 years



### Applications

Anorexigenic circulating metabolite

### Functions

Exercise is associated with transient suppression of appetite which previously has been attributed to induction of appetite-regulatory hormone such as GLP-1 or the increase in circulating metabolites including L-lactate. A targeted metabolomics approach with blood samples from two independent human exercise studies resulted in the identification of N-lactoyl-phenylalanine (Lac-Phe) as a highly upregulated circulating metabolite following exercise. Lac-Phe was shown, using pharmacological and genetic methods, to be an exercise-inducible metabolite that suppresses feeding and obesity. A single injection of Lac-Phe was demonstrated to reduce food intake by ~50% in diet-induced obese mice. However, Lac-Phe is completely inactive when administered orally.

### Application Procedures

First dissolved in DMSO (at least 50 mg/ml), then diluted to aqueous buffer. Solutions in DMSO may be stored at -20°C for up to 2 months.

**For research use only.**