

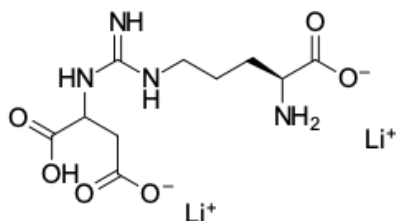
## L-Argininosuccinic acid (ASA)

<http://www.lumiprobe.com/p/argininosuccinic-acid-asa>

Argininosuccinate (L-Argininosuccinic acid) is a non-proteinogenic amino acid and an intermediate metabolite in the urea cycle, representing a conjugate of the amino acids arginine and aspartic acid. The reagent is intended for use as an analytical standard for quantitative analysis by LC-MS/MS in biological matrices.

Argininosuccinate serves as a diagnostic marker in newborn screening for the inherited metabolic disorder argininosuccinate lyase deficiency (argininosuccinic aciduria).

This condition disrupts the urea cycle, leading to hyperammonemia and the accumulation of argininosuccinate in the patient's blood and urine. It may also be used in conjunction with [citrulline](#) for the diagnosis of another urea cycle disorder — argininosuccinate synthase deficiency (citrullinemia). In this case, argininosuccinate levels in the blood will be decreased, while citrulline levels are significantly elevated.



**Structure of L-Argininosuccinic acid**

### General properties

Appearance: white solid

Molecular weight: 302.14

CAS number: 2230686-32-3 (lithium salt); 2387-71-5 (free acid)

Molecular formula:  $C_{10}H_{16}Li_2N_4O_6$

Quality control: NMR  $^1H$  and HPLC-MS (95+%)

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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