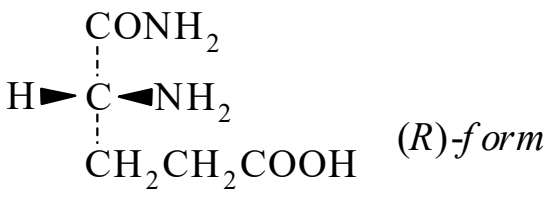
>>**Entry Name: Isoglutamine**
**Synonym(s):** 4,5-Diamino-5-oxopentanoic acid, 9CI. 4-Aminoglutaramic acid. Glutamic acid 1-monoamide



(*R*)-*form*

**CAS Registry Number:** 328-48-3

**Molecular Formula:** $C_5H_{10}N_2O_3$
**Molecular Weight:** 146.146
**Accurate Mass:** 146.069143
**Percentage Composition:** C 41.09%; H 6.90%; N 19.17%; O 32.84%

>>**Variant:** (*R*)-form
**Synonym(s):** D-form

**CAS Registry Number:** 19522-40-8

**Molecular Formula:** $C_5H_{10}N_2O_3$
**Molecular Weight:** 146.146
**Accurate Mass:** 146.069143
**Percentage Composition:** C 41.09%; H 6.90%; N 19.17%; O 32.84%
**Biological Source:** Present in the peptides of the cell walls of *Streptococcus aureus, Mycobacterium rosens* and *Streptococcus pyogenes*
**Optical Rotation:** $[\alpha]_D^{25}$–20.6 (c, 0.96 in $H_2O$)

>>**Derivative:** Hydrobromide

**Physical Description:** Cryst. ($H_2O$)
**Melting Point:** Mp 215-216°
**Optical Rotation:** $[\alpha]_D^{25}$–18 (c, 5.98 in $H_2O$)

>>**Derivative:** *N*-Benzyloxycarbonyl

**Physical Description:** Cryst. ($H_2O$ or MeOH)
**Melting Point:** Mp 175-176°
**Optical Rotation:** $[\alpha]_D^{20}$+5.9 (c, 2 in MeOH)

>>**Variant:** (*S*)-form
**Synonym(s):** L-form

**CAS Registry Number:** 636-65-7

**Molecular Formula:** $C_5H_{10}N_2O_3$
**Molecular Weight:** 146.146
**Accurate Mass:** 146.069143
**Percentage Composition:** C 41.09%; H 6.90%; N 19.17%; O 32.84%
**Biological Source:** A metab. of 2-Phthalimidoglutarimide BGX44-Z
**Physical Description:** Cryst. ($Me_2CO$)
**Melting Point:** Mp 186° (181° dec.)
**Optical Rotation:** $[\alpha]_D^{21}$+20.5 (c, 6.1 in $H_2O$)
**pKa Value:** p$K_{a2}$ 7.88 (25°)
**Sigma:** I8884

>>**Derivative:** Hydrobromide

**CAS Registry Number:** 63648-75-9
**Physical Description:** Cryst. ($H_2O$)
**Melting Point:** Mp 216-217°
**Optical Rotation:** $[\alpha]_D^{24}$+17.3 (c, 6.2 in $H_2O$)

>>**Derivative:** *N*-Benzyloxycarbonyl

**Physical Description:** Cryst. ($Me_2CO$/petrol or $H_2O$)
**Melting Point:** Mp 172-173° (168-169°)

>>**Derivative:** 4-Nitroanilide