

Biotin for Interference Testing

Catalog number: K2010008B
Lot number: 0120K0008B
Expiration date: 2021-05-31
Others Name(s): Biotin, vitamin H, vitamin B7, coenzyme R
Molar Mass: 244.31 g/mol
Content:

- Biotin solution 200 µg/mL in diluent A (1 mL)
- Diluent A (2 mL)

Storage: -20°C

Analysis of Components:

- CAS Number: 58-85-5
- Formula: C₁₀H₁₆N₂O₃S
- Molecular Weight: 244.31 g/mol
- Appearance: Clear solution
- Carbon: 48.5 - 49.9 % (obtained 49.0 %)
- Nitrogen: 11.2 - 11.8 % (obtained 11.5 %)
- ¹H NMR Spectrum: Conforms to structure
- Specific Rotation: 89 - 93 ° (obtained 89 °)
- Purity (HPLC): 100%

Applications:

- Testing the interference of biotin in assays aimed at quantifying analytes in human whole blood, serum or plasma.
- Verifying the manufacturer's assay tolerance claims.
- Adjustment of reagent composition during assay development.

Limitations:

- Tolerance concentrations of interfering substances are assay-dependent and should be carefully established by each laboratory, for each assay.
- When interpreting interference results, special considerations need to be taken when assaying certain analytes as they can bind to human serum proteins. For instance, human serum albumins are known to chelate ions such as calcium, magnesium, sodium, potassium, homocysteine, lipids and bilirubin. This kit is for research use only and should not be used as a standard material or as a control material.

Instructions for Use:

- Completely thaw kit vials at room temperature. Vigorously vortex vials and let equilibrate at room temperature for 15 min. Briefly vortex each vial before each pipetting.
- To take into account the dilution factor introduced by spiking an interferent into a specimen, a control specimen (diluent without interferent) should always be prepared (see table below. Interference tolerance is exclusively assessed by comparing the value recovered for the spiked specimen to that of the control specimen (specimen with diluent and without interferent)).
- Example of calculation to test an assay's tolerance to the typical 1200 ng/mL of Biotin:

Biotin	0 ng/mL	1200 ng/mL
Specimen (sample or control) (µL)	994	994
Stock Biotin 200 µg/mL (µL)	0	6
Diluent A (µL)	6	0

Related Products:**Interference Test Kit for Assay Validation (K2010001):**

Interference Test Kit containing six endogenous substances to use in assay routine interference testing. Interference Test Kit includes concentrated stock solutions of Ascorbic Acid (176 mg/mL), Free Bilirubin (20 mg/mL), Conjugated Bilirubin (20 mg/mL), Human Hemoglobin (200 mg/mL), Human Serum Proteins (20 g/dL), and a Triglycerides mix (1000 mg/mL). More info at: <https://moleculardepot.com/product/interference-test-kit-for-assay-validation/>

Interference Test Kit EXTRA for Assay Validation (K2010008):

Kit includes highly pure concentrated stock solutions of Biotin, Creatinine, EDTA, Glucose, Glycerol, Intralipid, Pyruvate, Urea and Cholesterol. More info at: <https://moleculardepot.com/product/interference-test-kit-extra-for-assay-validation/>

Rheumatoid Factor Interference Kit (K2010007):

A ready-to-use kit that includes a concentrated Rheumatoid Factor (RF) solution (human plasma containing an extremely high level of RF, > 1800 IU/mL, 2 mL) and the corresponding plasma diluent (Rheumatoid Factor Diluent, 10 mL). More info at: <https://moleculardepot.com/product/rheumatoid-factor-interference-kit/>

HAMA Interference Kit (K2010009)

A ready-to-use kit to test Human Anti-Mouse Antibodies (HAMA) interference in immunoassays. The kit includes five serum-based HAMA-positive serum samples (PS1 to PS5) with HAMA concentrations of up to 100 ng/mL (as established by a HAMA ELISA assay) as well as a serum-based HAMA-negative sample (NS) that serve as a control (no HAMA). More info at: <https://moleculardepot.com/product/hama-interference-kit-for-assay-validation/>

Should you have any questions or need any assistance with this product, please contact our customer support:

- Email: info@moleculardepot.com
- Phone: 1-858-900-3210
- Text/SMS: 1-858-900-3210