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**Lab Dept:** Chemistry

**Test Name:** ADENOSINE DEAMINASE

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***General Information***

**Lab Order Codes:** ADEA

**Synonyms:** ADA

**CPT Codes:** 84311 – Spectrophotometry, analyte not elsewhere specified

**Test Includes:** Adenosine deaminase (AD) concentration measured in U/g Hb.

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***Logistics***

**Test Indications:** Evaluation of hemolytic anemia of obscure cause. Evaluation of severe combined immunodeficiency (SCID) syndrome.

**Lab Testing Sections:** Chemistry - Sendouts

**Referred to:** Mayo Medical Laboratories (MML Test: FADDB) (Mayo forward to Quest Diagnostics)

**Phone Numbers:** MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 10 days, test performed Monday – Friday

**Special Instructions:** Yellow ACD tubes can be obtained from Children's laboratories.

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***Specimen***

**Specimen Type:** Whole blood

**Container:** Lavender top (EDTA) tube

**Draw Volume:** 4 mL (Minimum: 1 mL) blood

**Processed Volume:** Same as Draw Volume

**Collection:** Routine venipuncture, invert gently to mix.

**Special Processing:** Lab Staff: **Do Not** centrifuge. Whole blood specimen should remain in original collection container. Send specimen at refrigerated temperatures. Forward promptly.

**Patient Preparation:** None

**Sample Rejection:** Specimen other than EDTA whole blood, mislabeled or unlabeled specimens

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### ***Interpretive***

**Reference Range:** 0.3 – 1.4 IU/g Hb

**Critical Values:** N/A

**Limitations:** The limit of detection of this assay is such that the result of this test should not be used as an independent diagnostic test for adenosine deaminase deficiency. If clinical or family history or presentation is suggestive of a severe combined immunodeficiency syndrome or variant SCID, consultation with a clinical immunologist is recommended along with additional testing for lymphocyte subset quantitation to determine the immune phenotype. As the diagnostic window is very narrow for this test, some normal healthy individuals can have values below the limit of detection.

**Methodology:** Colorimetric ©, Kinetic

**References:** [Mayo Medical Laboratories Web Page](#) (November 2017)

**Update:** 1/25/2011: Units change, previously listed as IU/g Hb. Reference range update.  
5/12/2014: Test now forwarded to Quest from MML. Note unit, method and ref range update.  
4/21/2016: Update draw tube to EDTA, previously ACD.  
11/6/2017: CPT update