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**Lab Dept:** Serology

**Test Name:** INNER EAR ANTIGEN

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***General Information***

**Lab Order Codes:** IEA

**Synonyms:** Anti-68kD (hsp-70) antibodies; 68kD (hsp-70); Heat Shock Protein 70; Anti-cochlear antibody

**CPT Codes:** 84182 – Protein; Western blot, with interpretation and report, blood or other body fluid, immunological probe for band identification

**Test Includes:** 68kD (hsp-70) reported as positive or negative.

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***Logistics***

**Test Indications:** Sensorineural hearing loss (SNHL), commonly referred to as nerve deafness, may be caused by genetic factors, acquired factors (ie, infections) or can be immunologically mediated. In the majority of cases, no cause of SNHL is apparent. Such cases are referred to as idiopathic SNHL. A subgroup of idiopathic SNHL cases is treatable with immunosuppressive therapy. The laboratory studies used to identify these cases should include serum antibody tests to 68kD (hsp-70) inner ear antigen. Twenty-two percent of patients with bilateral rapidly progressive SNHL have antibodies that react with the 68kD antigen. Anti-68kD(hsp-70) antibodies also occur in approximately 60% of patients with bilateral Meniere's disease, 35% of patients with unilateral Meniere's disease and 37% of patients with contralateral delayed endolymphatic hydrops.

**Lab Testing Sections:** Serology - Sendouts

**Referred to:** Mayo Medical Laboratories (MML Test: F68KD) forward to Immco Diagnostics, Inc (Immco Test: 340)

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

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 3 to 18 days; performed twice per week

**Special Instructions:** N/A

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***Specimen***

<b>Specimen Type:</b>	Blood
<b>Container:</b>	SST (Gold, marble or red) tube
<b>Draw Volume:</b>	9 mL (Minimum: 6 mL) blood
<b>Processed Volume:</b>	3 mL (Minimum: 2 mL) serum
<b>Collection:</b>	Routine venipuncture
<b>Special Processing:</b>	Lab Staff: Centrifuge specimen, remove aliquot and store and ship at frozen temperatures. Forward promptly.
<b>Patient Preparation:</b>	None
<b>Sample Rejection:</b>	Mislabeled or unlabeled specimens

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### ***Interpretive***

**Reference Range:**

Qualitative test: Positive or Negative

Antibodies to inner ear antigen (68kD) occur in approximately 70% of patients with autoimmune hearing loss. The antibody tests to this 68kD antigen parallel with disease activity. In addition, a majority of patients positive for antibodies to 68kD are responsive to corticosteroid treatment. (Hirose et al: The Laryngoscope 109: 1769 – 1999)

**Critical Values:**

N/A

**Limitations:**

N/A

**Methodology:**

Line Blot

**References:**

[Immco Diagnostics](#) December 2017

[Mayo Medical Laboratories Web Page](#) December 2017

**Updates:**

12/9/2013: Updated method and reference range. Method previously listed as Western Blot.

12/20/2017: Collection container update