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# Product datasheet for AM20836PU-N

## SCD1 (SCD) Mouse Monoclonal Antibody [Clone ID: CD.E10]

### Product data:

| | |
|---|---|
| **Product Type:** | Primary Antibodies |
| **Clone Name:** | CD.E10 |
| **Applications:** | ELISA, IHC, IP, WB |
| **Recommended Dilution:** | Western blot.<br>ELISA.<br>Immunoprecipitation.<br>Immunohistochemistry on frozen sections. |
| **Reactivity:** | Human, Mouse |
| **Host:** | Mouse |
| **Isotype:** | IgG2b |
| **Clonality:** | Monoclonal |
| **Immunogen:** | Full length recombinant protein |
| **Specificity:** | This antibody reacts to SCD / SCD1. |
| **Formulation:** | PBS, pH 7.4 with 0.05% sodium azide as preservative<br>State: Aff - Purified<br>State: Liquid purified Ig fraction |
| **Concentration:** | lot specific |
| **Conjugation:** | Unconjugated |
| **Storage:** | Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.<br>Avoid repeated freezing and thawing. |
| **Stability:** | Shelf life: one year from despatch. |
| **Gene Name:** | stearoyl-CoA desaturase |
| **Database Link:** | Entrez Gene 6319 Human<br>O00767 |

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**Background:** Stearoyl-CoA desaturase (SCD) is a regulatory enzyme in lipogenesis. The SCD1 gene is tightly regulated by signals such as insulin, leptin, carbohydrate, fatty acids and temperature. The enzyme (mouse 355aa, rat 358aa; ~37 KDa) is constitutively expressed in adipose tissue and is induced in liver in response to fat free, high carbohydrate diet. The SCD-1 expression is higher in female than male mouse. The repression of RNA levels and enzyme activity of hepatic SCD-1 by Leptin has been shown to significantly reduce the triglyceride storage, VLDL production and therefore an increase in fatty acid oxidation. Inhibition of SCD-1 could be of benefit for treatment of obesity, hepatic steatosis and other metabolic disorders.

**Synonyms:** Acyl-CoA desaturase, Fatty acid desaturase, Stearoyl-CoA desaturase

**Protein Families:** Transmembrane

**Protein Pathways:** Biosynthesis of unsaturated fatty acids, PPAR signaling pathway