

Biomedical Technologies Inc.

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DATA SHEET Dil-Ac-LDL

Acetylated Low Density Lipoprotein labeled with 1,1'-dioctadecyl-3,3',3'-tetramethylindo-carbocyanine perchlorate

Catalog No: BT-902 Concentration: 200ug/ml

Quantity: 200ug/vial Lot No 9020205

Absorbance Ratio: $\frac{\text{Dil}}{\text{Protein}} = \frac{555\text{nm}}{280\text{nm}} = 5.2$

Product Preparation:

Purified Low Density Lipoprotein is acetylated and then labeled with the fluorescent probe, Dil. Dil-AcLDL is reloaded by ultracentrifugation. The resultant product is exhaustively dialyzed against 0.15M NaCl, 0.05M Tris, (pH 7.4), 0.3mM EDTA, sterilized by filtration and then aseptically packaged. Many lots have been evaluated for the specific labeling of bovine aortic endothelium, HUVECS, murine macrophages and the current lot was evaluated on P-388D cells to assure consistent results.

Storage & Stability:

Dil-Ac-LDL is stable 3 months when kept sterile at 4°C. **NEVER FREEZE.**

NOTE: BTI also offers ECGS, Endothelial Mitogen (BT-203), which when added as a media supplement, improves the viability of cultured (EC) endothelial cells (HUVEC, etc.). EC attachment may be enhanced by coating cultureware with Human Fibronectin (BT-225) or Bovine Fibronectin (BT-226).

References:

1. Goldstein, J.L., Y.K. Ho, S.K. Basu and M.S. Brown. Binding site on macrophages that mediates uptake and degradation of acetylated low density lipoprotein, producing massive cholesterol deposition. *Proc.Nat.Acad.Sci. USA.* **76**: 335-337, 1979.
2. Fogelman, A.M., I. Schechter, J. Seager, M. Hokom, J.S. Child and P.A. Edwards. Malondialdehyde alteration of low density lipoproteins leads to cholesteryl ester accumulation in human monocyte-macrophages. *Proc.Nat.Acad.Sci.* **77**: 2214-2218, 1980.
3. Stein, O. and Y. Stein. Bovine aortic endothelial cells display macrophage-like properties towards acetylated [¹²⁵I]-labeled low density lipoprotein. *Biochem.Biophys.Acta.* **620**: 631-35, 1980.
4. Pitas, R.E., T.L. Innerarity, J.N. Weinstein and R.W. Mahley. Acetoacetylated lipoproteins used to distinguish fibroblasts from macrophages *in vitro* by fluorescence microscopy. *Arteriosclerosis.* **1**: 177-185, 1981.
5. Voyta, J.C., D.P. Via, B.R. Zetter. Fluorescence activated cell sorter separation of endothelial cells based on their increased acetylated low density lipoprotein. *Abs. From Third Int'l Sym. on the Biology of Vascular Endothelial Cell*, 1984.
6. Voyta, J.C., P.A. Netland, D.P. Via and B.R. Zetter. Specific labeling of Endothelial Cells using Fluorescent Acetylated-Low Density Lipoprotein. *J. Cell Biology,* **99**: 81A, 1984.
7. Netland, P. A., B.R. Zetter, D. P. Via and J. C. Voyta 1985. Insitu labeling of vascular endothelium with fluorescent acetylated low density lipoprotein. *Histochemical Journal.* **17**: 1309-1320.
8. Bjorling, D.E., R. Saben, M.W. Tengowski, S.M. Gruel and V.K. Rao. Removal of Venous Endothelium with Air. *J. Pharm. & Toxicology Methods* **28**: 149-157, 1992.

