

Adipocytokines

Adipocytokine is a general term for a bioactive product produced by adipose tissue. Adipocytokines include inflammatory mediators (IL-6, IL-8), angiogenic proteins (VEGF), and metabolic regulators (adiponectin; leptin). Although adipocytes can be induced to produce almost all known adipocytokines, preadipocytes, as well as macrophages and endothelial cells resident in adipose tissue, also contribute to adipocytokine production. Not all white adipose tissue is metabolically equivalent. Visceral adipose tissue, due in part to its association with the hepatic portal venous system, appears to be a critical regulator of glucose and fat metabolism. Subcutaneous adipose tissue, by contrast, is less understood. It appears to be the principal source of leptin and adiponectin. R&D Systems has a wide range of reagents for adipose tissue research. From proteins to ELISAs, R&D Systems manufactures and supports products necessary for both *in vitro* and *in vivo* metabolic research.

MOLECULE	ANTIBODIES	PROTEINS	ELISA/ASSAY KITS	MULTIPLEX ASSAY KITS & REAGENTS
Adiponectin/Acrp30	H M R	H M	H M	H
CCL2/MCP-1	H M Ca CR	H M R Ca	H M Ca	H M
Complement Factor D	H	H	H	H
FABP4	H M			
Fas/TNFRSF6	H M R F	H M R F	H M	
IGF-1 R	H	H	H	
IL-1	H M R CR P	H M R CR P	H M R	H M
IL-6	H M R Ca CR E F P	H M R Ca CR E F P	H M R Ca P	H M
CXCL8/IL-8	H Ca F P	H Ca F P	H P	H
Leptin	H M	H M R	H M	H M
MIF	H	H M	H	
PBEF/Visfatin	H M			
PPAR γ	H			
Pref-1	H			
Resistin	H M	M	H M	H M
Serpin E1/PAI-1	H M	H	H	H
Serum Amyloid A1	H M			
Serum Amyloid A4	H			
TNF RI/TNFRSF1A	H M	H M	H M	
TNF- α /TNFSF1A	H M R B Ca CR E P Pr	H M R B Ca CR E F P Pr	H M R Ca E P Pr	H M
TRAIL R1/TNFRSF10A	H	H		
TRAIL R2/TNFRSF10B	H M	H M		
VEGF	H M R Ca Z	H M R Ca Z	H M R	H M

Key: B Bovine Ca Canine CR Cotton Rat E Equine F Feline H Human M Mouse P Porcine Pr Primate R Rat Z Zebrafish

Serum Leptin Concentration

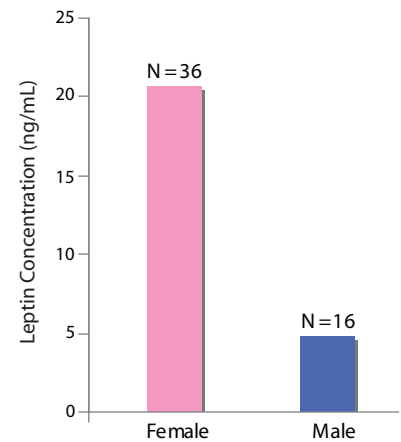


Figure 2. Serum Leptin concentrations were assessed using R&D Systems Human Leptin Quantikine[®] ELISA Kit (Catalog # DLP00). The results are consistent with the previous observation that Leptin levels are generally higher in females than males. Havel, P.J. et al. (1996) Nat. Med. 2: 949.

IGF-1 R Detection in Human Skin

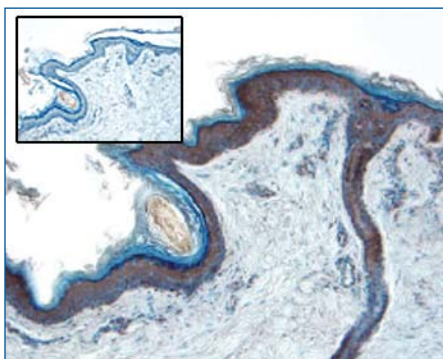


Figure 1. Detection of IGF-1 R in paraffin-embedded human skin tissue sections using R&D Systems anti-human IGF-1 R monoclonal antibody (Catalog # MAB391). Tissues were stained using R&D Systems anti-mouse HRP-DAB Cell and Tissue Staining Kit (Catalog # CTS002; brown) and counterstained with hematoxylin (blue). Adjacent control section in the absence of primary antibody exhibits little staining (inset).

Inhibition of sTRAIL R1 by Anti-TRAIL R1

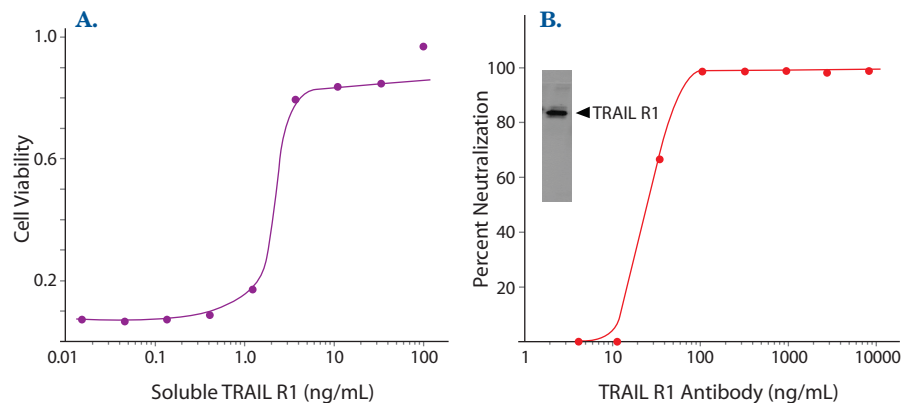


Figure 3. A: R&D Systems human soluble TRAIL R1 (Catalog # 347-DR) inhibits cytotoxicity induced by TRAIL (Catalog # 375-TL) in L929 cells. **B:** This effect is neutralized with human TRAIL R1 affinity-purified polyclonal antibody (Catalog # AF347). The same antibody recognizes TRAIL R1 in Western blot using extracts from TF-1 cells (blot inset). Cell viability was determined using the crystal violet method in the presence of actinomycin D. (Matthews, N. & M. L. Neale (1987) *Lymphokines and Interferons, a practical approach*. Clemens, M. J., Morris, A. G., & A. J. H. Gearing, eds., IRL Press, p.296).