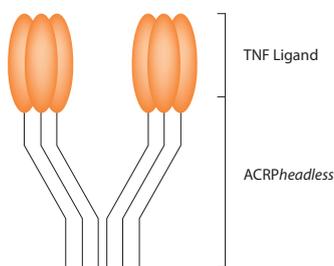


# TNF Ligands Multimeric Proteins

## Higher Activity – Lower Endotoxin

AdipoGen<sup>®</sup> Multimeric Proteins are high activity constructs in which two trimeric TNFSF ligands are linked via the oligomeric collagen domain of ACRP30 [ACRP30<sup>headless</sup>] and therefore mimic the membrane-bound forms of the proteins.



Endogenous TNF superfamily ligands are either active as membrane-form (e.g. FasL, TRAIL, CD40L, OX40L) or are secreted and activated through oligomerization by the binding of proteoglycans at the surface of cells (e.g. APRIL).

To mimic endogenous TNF ligands activity, the oligomerization of recombinant TNF ligands can be triggered:

- by fusing the TNF superfamily ligands, soluble form, to the collagen domain of the protein ACRP30 (which itself has no functional activity) to form a hexameric structure and therefore creating "Multimeric Proteins", or
- by adding a cross-linking antibody called "TNF Ligands Enhancer" (Prod. No. AG-35B-0001).

**BULK**

## Multimeric FasL<sup>™</sup> [MegaFasL<sup>™</sup>]

### FasL (human) (multimeric) (rec.)

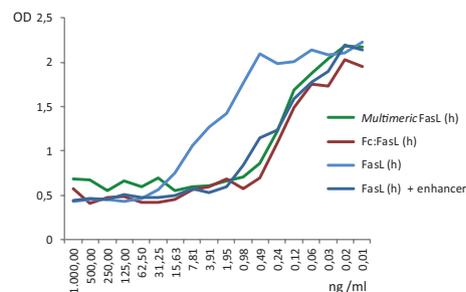
AG-40B-0130

10 µg | 3 x 10 µg

MultimericFasL<sup>™</sup> very effectively simulates the natural membrane-assisted aggregation of FasL *in vivo*.

- Source:** HEK 293 cells.
- Sequence:** Human FasL (aa 139-281) is fused at the N-terminus to mouse ACRP30<sup>headless</sup> (aa 18-111) and a FLAG<sup>®</sup>-tag.
- Specificity:** Binds to human and mouse Fas.
- Biological Activity:** Induces apoptosis of human Jurkat T cells at a concentration of <1ng/ml.
- Endotoxin Content:** <0.01 EU/µg purified protein (LAL test; Lonza).

**LITERATURE REFERENCES:** Two adjacent trimeric Fas ligands are required for Fas signaling and formation of a death-inducing signaling complex: N. Holler, et al.; Mol. Cell. Biol. **23**, 1428 (2003) • A Fas agonist induces high levels of apoptosis in haematological malignancies: P. Greaney, et al.; Leuk. Res. **30**, 415 (2006)



**FIGURE:** Oligomerisation of FasL (human) efficiently triggers Jurkat cell death.

**METHOD:** Jurkat cells were treated O/N with the indicated concentrations of FasL (human) (multimeric) (rec.) (AG-40B-0130), Fc (human):FasL (human) (rec.) (AG-40B-0132), FasL (human) (rec.) (AG-40B-0001) or FasL (human) (rec.) + Enhancer (AG-44B-0001) (2 fold-dilutions, first concentration of 1000ng/ml). Cell death was quantified using PMS/MTS. The oligomeric FasL recombinant proteins (FasL (human) (multimeric), Fc (human):FasL (human) and FasL (human) + Enhancer) kill Jurkat cells at IC<sub>50</sub> <0.2ng/ml.

**See Backcover for more Products!**

- **MultiPacks** for additional big savings!
- **Bulk Quantities** for *in vivo* cancer immunotherapy and vaccination studies in mice!

**BULK**

## Multimeric CD40L™

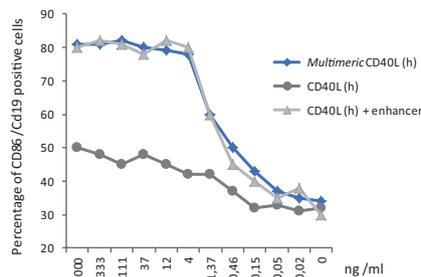
### CD40L (human) (multimeric) (rec.)

AG-40B-0010-C010

10 µg | 3 x 10 µg

- **MultimericCD40L™** very effectively mimics the natural membrane-assisted aggregation of CD40L. It is the most potent alternative to activate CD40. **No enhancer is required.**
- **MultimericCD40L™** is a potent B cell activator.

**LITERATURE REFERENCE:** IgG subclass switch capacity is low in switched and in IgM-only, but high in IgD+IgM+, post-germinal center (CD27+) human B cells: C. Werner-Favre, et al.; Eur. J. Immunol. 31, 243 (2001)



**FIGURE:** CD40L (human) (multimeric) (rec.) (Prod. No. AG-40B-0010) does not need an enhancer to induce B cells activation.

### CD40L (mouse) (multimeric) (rec.)

AG-40B-0020

10 µg | 3 x 10 µg

### CD40L (rat) (multimeric) (rec.)

AG-40B-0107

10 µg | 3 x 10 µg

*Bulk available for in vivo studies!*

## Full Panel of Multimeric Ligands™

### APRIL (human) (multimeric) (rec.)

AG-40B-0017

10 µg | 3 x 10 µg

### APRIL (human) (H98) (multimeric) (rec.)

AG-40B-0088

10 µg | 3 x 10 µg

*Same activity as AG-40B-0017. Does not bind proteoglycans.*

### APRIL (mouse) (multimeric) (rec.)

AG-40B-0089

10 µg | 3 x 10 µg

### APRIL (mouse) (H98) (multimeric) (rec.)

AG-40B-0035

10 µg | 3 x 10 µg

*Same activity as AG-40B-0089. Does not bind proteoglycans.*

### OX40L (mouse) (multimeric) (rec.)

AG-40B-0029

10 µg

### TNF-α (human) (multimeric) (rec.)

AG-40B-0019

10 µg | 3 x 10 µg

*Activates TNF-R1 and TNF-R2!*

### TNF-α (mouse) (multimeric) (rec.)

AG-40B-0021

10 µg | 3 x 10 µg

*Activates TNF-R1 and TNF-R2!*



SMALL MOLECULES



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