CD112R – NEW & UNIQUE Immune Checkpoint Receptor

CD112R [PVRIG; Poliovirus receptor-related immunoglobulin domain-containing protein] is a new high affinity receptor of CD112/Nectin-2. It inhibits TCR-mediated signals upon binding to CD112/Nectin-2. CD112R as a new regulator of the immune system may become a new attractive cancer immunotherapy target.

LATEST INSIGHT

CD28/B7 Pathway – Importance in PD-1 Therapy

PD-1–targeted therapies have been a breakthrough for treating certain tumors and can rejuvenate T cells to unleash the anticancer immune response. Recently, it was shown that PD1 inhibits T cell activation by suppressing positive co-stimulation through CD28, instead of TCR itself. CD28 is required for PD-1 therapies to kill cancer cells efficiently and eliminate chronic viral infections in mice and is a critical target for PD-1 blockade.


Visit www.adipogen.com for a Complete Panel of Immune Checkpoint Proteins & Antibodies!
New Role of IL-33 – Expansion of T Regulatory Cells (Treg)

IL-33 has emerged as a multifunctional protein, with roles in driving potent Type 1 and Type 2 immunity, as well as facilitating profound Treg expansion in vitro and in vivo. IL-33-expanded Treg express the IL-33 receptor ST2 and classical markers associated with Treg phenotype and suppressor function. IL-33 may potentially be used to promote/maintain organ transplant tolerance or suppress autoimmunity and has been associated with Treg-mediated wound healing.


Highly Active IL-36 Family Proteins

IL-36α, β, γ are members of the IL-1 family with proinflammatory effects and involvement in first-line defence against microorganisms. IL-36γ is associated with skin, lung and bowel inflammation and was shown to be a specific biomarker for psoriasis.

**NEW** Highly Active Human IL-33 Proteins

| IL-33 (oxidation resistant) (human) (rec.) | Untagged | 10 µg | 100 µg |
| AG-408-0160 |
| AG-408-0167 |


**NEW** IL-36γ (human) ELISA Kit

AG-45B-0008 | 96 wells

IL-36γ is a specific marker for Psoriasis. This assay is highly specific for human IL-36γ. Does not cross-react with human IL-36α and IL-36β.

**Sensitivity:** 3 pg/ml  
**Range:** 3.9 to 250 pg/ml  
**Sample:** Serum, Cell Culture Supernatant

**IL-37 (human) ELISA Kit**

AG-45A-0041Y | 96 wells | TwinPlex

IL-37 is a new anti-inflammatory cytokine. This assay detects natural and recombinant monomeric and dimeric human IL-37.

**Sensitivity:** 10 pg/ml  
**Range:** 16 to 1000 pg/ml  
**Sample:** Serum, Plasma

Plasma Cell Survival & Proliferation Blocking Antibodies

**BULK** anti-BAFF (mouse), mAb (blocking) (Sandy-2)
- AG-20B-0063
- AG-20B-0063PF
  - Preservative Free
  - 100 µg
- Functional Application: **Depletion of B cells in vivo.** Inhibition of mouse BAFF binding to BAFF-R and TACI (BCMA not tested); blocks BAFF activity in mice.

**LIT:**

**BULK** anti-APRIL (mouse), mAb (rec.) (blocking) (Apry-1-1)
- AG-27B-0001
- AG-27B-0001PF
  - Preservative Free
  - 100 µg
- AG-27B-0001B
  - Biotin
  - 100 µg
- Functional Application: **Depletion of plasma cells.** Inhibits binding of mouse APRIL to mouse BCMA and TACI.

**LIT:**

Multimeric & Mutant Cytokines with Increased Activity

**IL-2 Superkine (Fc)**
- AG-40B-0111
  - 10 µg | 3 x 10 µg

Compared to IL-2, IL-2 Superkine does not require CD25 to be active and induces superior expansion of cytotoxic CD8+ T and NK cells, leading to improved antitumor responses **in vivo.** IL-2 Superkine activates only poorly T regulatory cells (Tregs), meaning less toxic effects **in vivo.**

**LIT:**
- Exploiting a natural conformational switch to engineer an interleukin-2 'superkine': AM. Levin, et al; Nature 484, 529 (2012)

**BAFF, Soluble (human) (60-mer) (rec.) (highly active)**
- AG-40B-0112
  - 10 µg | 3 x 10 µg

**Biological Activity:** Increases B cell survival/proliferation. Increases CD21/CD23 expression on B cells **in vivo.** **Activates BAFF-R, TACI and BCMA receptors.** Works at concentrations <20ng/ml.

**LIT:**

**FIGURE:**
- Binding of IL-2 Superkine (Fc) (Prod. No. AG-40B-0111) to IL-2Rβ (human) is increased 10 fold compared to IL-2 (human):Fc (human).

**Fc (human):OX40L, Soluble (human) (rec.)**
- AG-40B-0172
  - 10 µg | 3 x 10 µg

Binds to human OX40 (CD134) and activates T cell proliferation.

**CD40L (human) (multimeric) (rec.)**
- AG-40B-0010
  - 10 µg | 3 x 10 µg

Potent B cell activator.

**FasL (human) (multimeric) (rec.) [MegaFasL™]**
- AG-40B-0130
  - 10 µg | 3 x 10 µg

Induces apoptosis of human Jurkat T cells at <0.2ng/ml.

**TNF Ligands Multimeric Proteins**

**APRIL (human) (multimeric) (rec.)**
- AG-40B-0017
  - 10 µg | 3 x 10 µg

Binds to human and mouse BCMA and TACI. Binds to proteoglycans. Stimulates B cell proliferation.

**APRIL (human) (H98) (multimeric) (rec.)**
- AG-40B-0088
  - 10 µg | 3 x 10 µg

Binds to human and mouse BCMA and TACI. Does not bind to proteoglycans. Stimulates B cell proliferation.

**For a Complete Overview see our TNF Ligands Multimeric Proteins Product Flyer!**
**Highly Active hIDO1**  
*For Enzymatic Assays & Inhibitor Screenings*

IDO1 (human) (rec.) (His) (highly active)  
AG-40B-0161  
50 µg

**Specific Activity:** >100’000U/mg protein with L-tryptophan as substrate (activity assay with catalase). One unit is defined as the amount of enzyme that produces 1nmol of N-formylkynurenine (NFK) per hour.

**Potent Triazole IDO1 Inhibitor:** MMG-0358  
AG-CR1-3630  
1 mg | 5 mg

Shows IC₅₀ values of 2nM in a cellular assay on mIDO1, 80nM in a cellular assay on hIDO1, 330nM in an enzymatic assay on hIDO1 at pH 6.5, and 71nM in an enzymatic assay on hIDO1 at pH 7.4. Active in vivo.

**LIT:** Rational design of 4-aryl-1,2,3-triazoles for indoleamine 2,3-dioxygenase 1 inhibition: U.F. Roehrig, et al.; J. Med. Chem. 55, 5270 (2012)

**NEW** IDO1 (human) Enzyme + Inhibitor Set  
AG-448-0006  
1 Set

Includes 1x50 µg of Prod. No. AG-40B-0161 and 1x100 µg of Prod. No. AG-CR1-3630.

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**Highly Active DLL4 Mutant Protein**

**NEW** DLL4 (human):Fc (human) (rec.) (highly active mutant)  
AG-40B-0176  
10 µg | 100 µg

Interacts with human Notch1 with >20 fold increase in affinity relative to WT DLL4 (as confirmed by ELISA).

Visit www.adipogen.com for a Complete Panel of Notch-related Reagents!

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**In vivo Inflammasome Inhibitor**  
MCC950 . sodium salt (>98%)  
AG-CR1-3615  
1 mg | 5 mg | 10 mg

**From the Manufacturer of iNKT Stimulators**  
α-Galactosylceramide (>96%) [KRN 7000]  
AG-CN2-0013  
250 µg | 1 mg

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**Potent Immunosuppressants**  
>> Cyclosporin A, FTY720, Mycophenolic acid, Rapamycin, and more!