

# Highly Potent Fully Human Anti-VISTA Antibodies Efficiently Abrogate the Interaction of VISTA to Its Putative Receptors at Different pH.



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## Background

- VISTA (V-domain Ig Suppressor of T cell Activation) is a unique CD28/B7 family member with poorly defined receptors. However, VISTA itself, PSGL-1, VSIG3, VSIG8 and LRIG1 have been suggested as putative receptors.
- VISTA is highly expressed on circulating and intratumoral myeloid cells as well as NK cells and Treg.
- VISTA is a negative regulator that directly suppresses T cell activation and proliferation.
- High VISTA expression correlates with poor survival in cancer patients.
- VISTA is a unique immune checkpoint inhibitor for tumor immunotherapy.

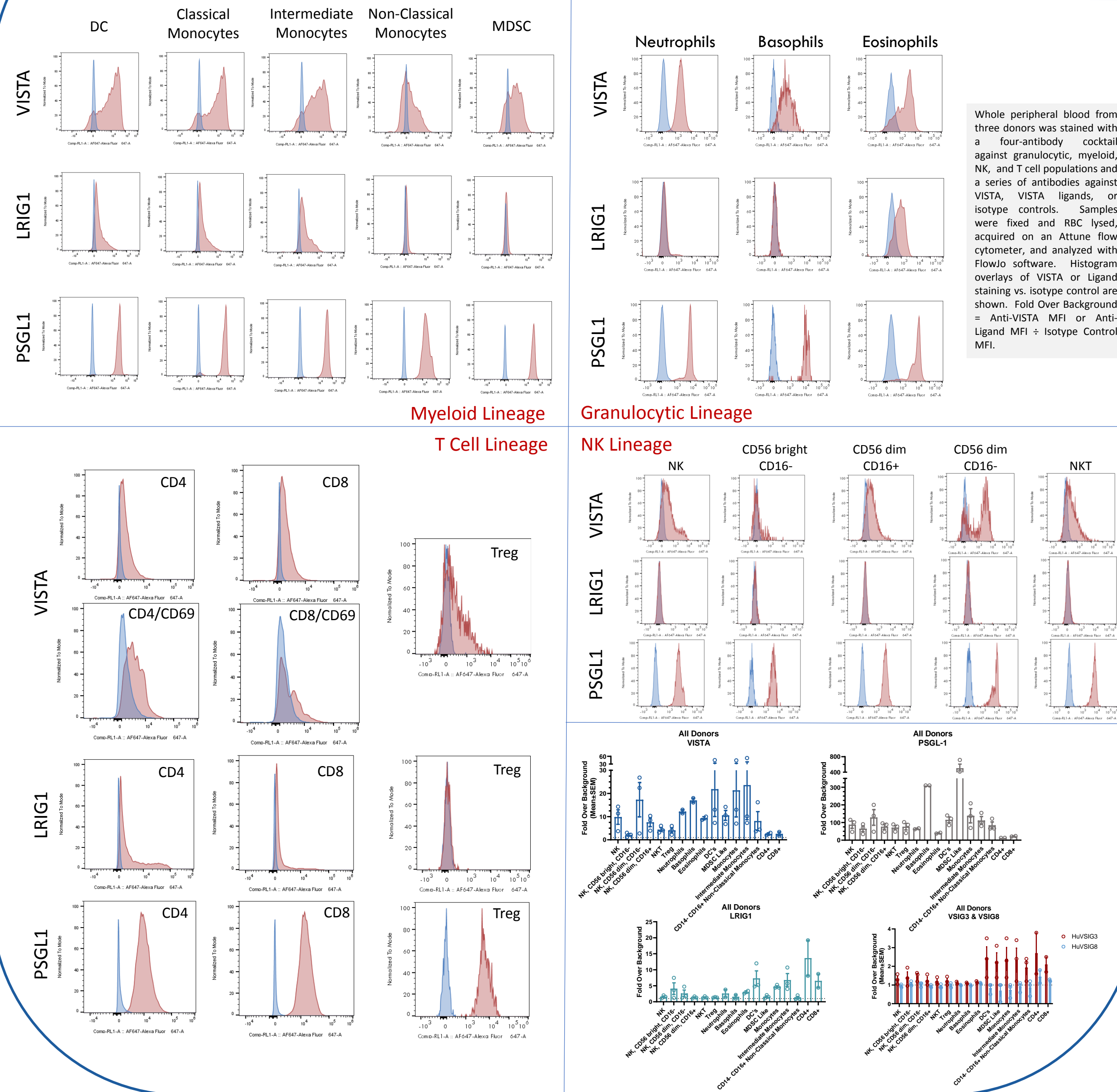
## Objectives

- Various research groups have demonstrated that VISTA can interact with at least 5 receptors: VISTA itself, PSGL-1 in acidic conditions, VSIG3, VSIG8 and LRIG1.
  - Identify and/or confirm the putative receptors for VISTA.
  - Describe the expression of these potential receptors on the different blood cell populations.

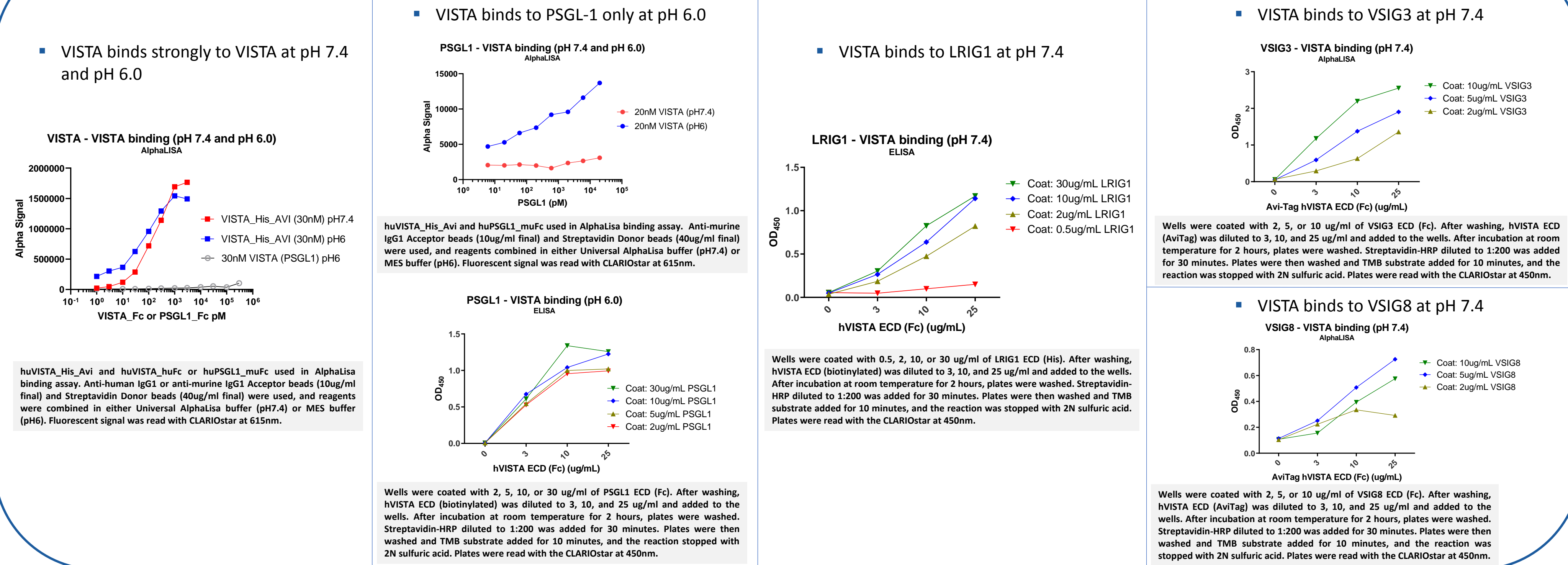
## Results

### VISTA and VISTA Receptors Expression on Human Whole Blood Leukocyte Populations

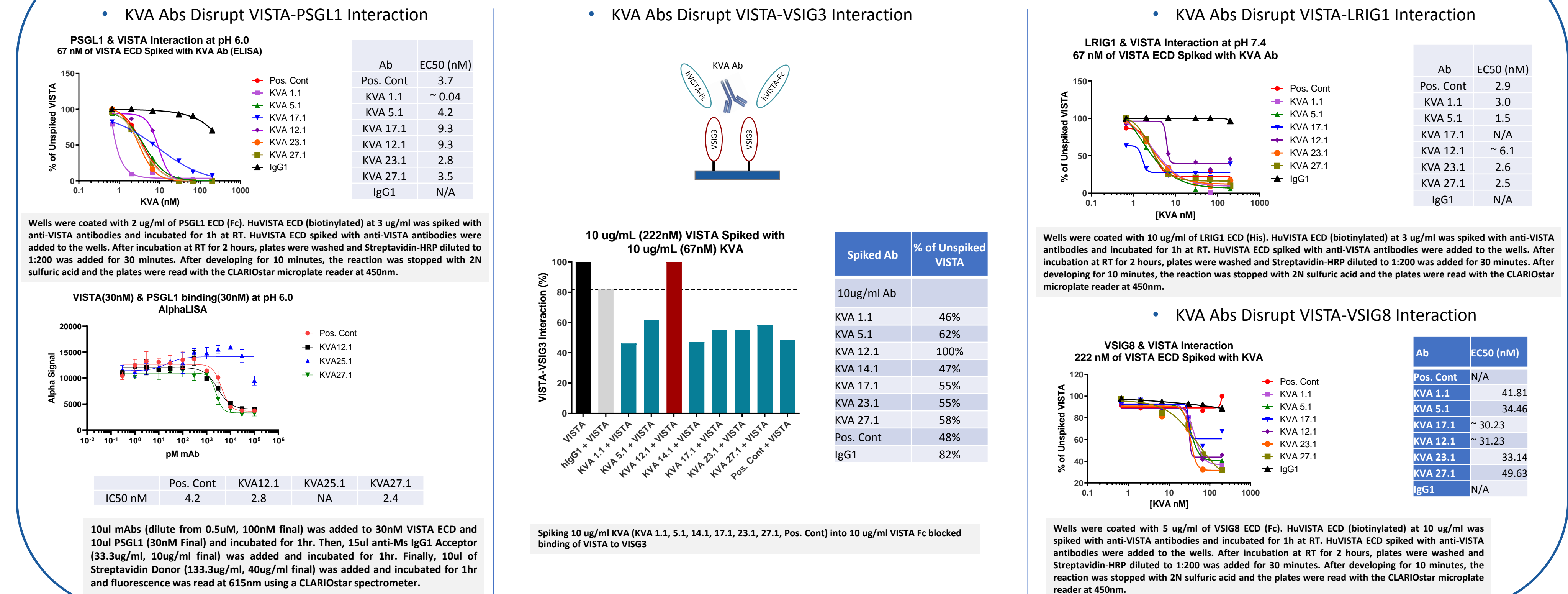
Results representative of 3 healthy donors: Donor # 4903 shown



### VISTA interacts with its putative receptors at different pH



### Kineta's VISTA antibodies block VISTA interaction with PSGL-1, VSIG3, VSIG8 and LRIG1



## Conclusion

- VISTA is highly expressed on Myeloid cells as well as Granulocytes, NK and NKT cells.
- VISTA is also expressed on Treg and modestly on CD4 and CD8 cells. CD4/CD69 activated T cells seems to be high expresser.
- PSGL-1 is highly expressed on all immune cells.
- LRIG-1 has low level expression on Myeloid cells as well as CD4+ T cells.
- VISTA binds to the 5 putative receptors already identified including itself at neutral or acidic pH.
- Kineta's anti-VISTA antibodies selectively inhibit these interactions with different potencies.