



### What are HLA genes?

Your immune system recognises what belongs to your body through special “ID tags” on your cells called [Human Leucocyte Antigens \(HLA\)](#). Everyone’s HLA pattern is unique, like a fingerprint. During pregnancy, the embryo also shows some of the sperm’s HLA markers. The mother’s immune system needs to tolerate these differences rather than attack them.

### How does this relate to fertility?

In early pregnancy, cells from the embryo (called trophoblasts) attach to the lining of the uterus. These cells display certain HLA markers that “communicate” with immune cells in the uterus and help implantation and placental development. Some research has explored whether specific HLA combinations between a couple could make implantation more difficult. However, most studies show that these effects are [small, inconsistent and more research is needed](#). Many couples with the same HLA patterns conceive naturally without difficulty.

### HLA-DQ Alpha and other tests

A few private labs advertise blood tests looking for “HLA DQ Alpha matching” or “immune compatibility.”

- These tests lack proven benefit and are [not part of routine fertility or IVF care](#).
- One part of HLA being tested (HLA-DQ Alpha) is not usually active at the site of implantation.
- Even when a “match” is reported, this [does not mean infertility](#), including the ability to naturally conceive.
- There are [no proven treatments](#) that improve pregnancy rates based on these results.

### Testing Limitations

- **Accuracy:** The lab testing itself is accurate, but it [does not predict fertility outcomes](#).
- **Evidence:** Major fertility societies (ESHRE and ASRM) currently [recommend against](#) the routine HLA or “immune compatibility” testing for fertility including recurrent implantation failure or miscarriage.
- **Treatment:** There is [no evidence](#) that donor eggs or sperm chosen for different HLA types improve success. Most donor programs do not test or report this information.

### What really matters

At Coastal IVF we focus on factors that are proven to affect fertility and influence outcomes such as;

- Embryo quality and genetics
- Uterine/pelvic health and endometrial preparation
- Hormone balance and timing

In summary although HLA testing sounds very scientific and interesting, in reality it is not a proven cause of infertility, routine testing is not recommended and no effective treatments exist for those labelled a ‘mismatch.’