

SELF AND NON-SELF

Posed Problem:

How are self and non-self, distinguished?

Hypothesis:

Self and Non-self are distinguished by *HLA MARKER*

HLA

Definition: Human Leukocyte Antigen, is a protein molecule present on the cell membrane of every nucleated cell.

Role: HLA represent the biological identity which is specific by each individual

Difference Between Self and Non-self:

Every nucleated cell carries a special identity card, in the form of a small protein present at its surface, which is called *ANTIGEN* or *HLA*.

So, any cell that will enter the body can be either accepted or rejected, based on the HLA MARKERS, which are identical on all Self-cells, and different in all Non-self-cells.

Types of Antigen:

2 Types:

- Self ANTIGEN (DON'T induce or Activate the immune response)
- Non-self ANTIGEN (INDUCE an immune system)