

## Allergy-immunology glossary

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*Towards a clear designation of some of the terms used in allergology and immunology.*

<p><b>Dendritic cells (DCs)</b></p>	<p>Are highly mobile antigen-presenting cells that are morphologically characterized by thin membranous projections. The function of DCs falls broadly into three categories: antigen presentation and activation of T cells, inducing and maintaining immune tolerance and maintaining immune memory in tandem with B cells.<sup>1,2</sup> DCs are derived from hematopoietic stem cells; however, DCs can originate from both lymphoid and myeloid lineages. A combination of the presence and absence of various surface markers has been used to identify DCs. These include the presence of large amounts of class II MHC antigens and the absence of various lineage markers. CD86 tends to be a marker of early DC maturation, while CD80 only appears in mature DC. Two additional markers of mature DC in humans are CD83 and CMRF-44.<sup>1</sup></p>	<p>خلايا تغصنية<sup>3</sup></p>
<p><b>Myeloid DCs (DC1)</b></p>	<p>In humans, myeloid lineage DCs are considered the “classical” DCs. They originate from myeloid committed CD34+ progenitors; monocytes can be driven to become DCs in the presence of GM-CSF and TNF<math>\alpha</math> <math>\pm</math> IL-4.<sup>1</sup> DC1 express different Toll-like receptors (TLR)-2, -3, -4, and -7. After encountering different natural ligands or pathogens, DC1 cells become activated and mature into <b>interstitial DC</b> that can secrete Th-1 or Th-2 cytokines and prime naive T cells and can induce differentiation of naïve B cells to antibody secreting plasma cells. Interstitial DCs are assumed to migrate to the lymphoid follicles and become <b>follicular DCs</b>.<sup>1</sup></p>	<p>خلايا تغصنية نخاعية<sup>3</sup>  خلالية<sup>3</sup>  جريبية<sup>3</sup></p>
<p><b>Plasmacytoid DCs (DC2)</b></p>	<p>The lymphoid DCs – the DC2 subset that originates from CD34+ cells committed to the lymphoid lineage are referred to as plasmacytoid DCs. They reside in the T cell compartment of lymphoid tissues. DC2 express TLR7 and TLR9 receptors and are the principal producers of interferon-alpha after encountering invading viruses.<sup>1</sup></p>	<p>خلايا تغصنية بلازماوية الشكل<sup>3</sup></p>

### REFERENCES:

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