

CONTINUING MEDICAL EDUCATION EXAMINATION

Group 2 Innate Lymphoid Cells: New Players in Human Allergic Diseases

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CME Items

- Which of the following describes ILC2s correctly?
 - Specialized innate T cells that produce T_H2 cytokines
 - A novel natural killer T-cell subset that produces IL-5 and IL-13
 - Lineage-negative lymphocytes that produce high levels of T_H2 cytokines
 - A subset of basophils that produce IL-4
- Which of the following statements is correct?
 - Lineage-negative* means that ILC2s are from a previously undescribed and novel lineage
 - Lineage-negative* means that ILC2s do not express lineage surface markers known for T cells, B cells, NK cells, and other known lineage cells
 - Lineage-negative* means that ILC2s can be identified by a specific surface marker that is unique for this cell type
 - Lineage-negative* means that the ILC2 precursor is not found in the bone marrow
- All of the following transcription factors are critical for ILC2 development except:
 - T-bet
 - GATA-3
 - Notch
 - IL-7R
- Which of the following mediators are produced by ILC2s?
 - IL-33
 - Cysteinyl leukotrienes
 - IL-5
 - TSLP
- Which of the following receptors are expressed by human ILC2s?
 - CRTH2 that binds prostaglandin D₂
 - CRTH2 that binds to cysteinyl leukotrienes
 - T1/ST2 that binds to IL-25
 - T1/ST2 that binds to TSLP
- All of the following lipid mediators have been shown to modulate ILC2 function except:
 - Cysteinyl leukotrienes
 - Prostaglandin D₂
 - Lipoxin A₄
 - Prostaglandin E₁
- Which of the following is correct?
 - ILC2s from the lungs of asthmatics have been shown to produce high levels of IL-5 and IL-13
 - ILC2s from the peripheral blood of asthmatics have been shown to produce high levels of IL-5 and IL-13
 - Peripheral blood ILC2s have been shown to be increased in severe asthmatics compared with mild asthmatics
 - Lung ILC2s have been shown to be increased in severe asthmatics compared with mild asthmatics
- Mouse models of asthma have shown that ILC2s contribute to all of the following except:
 - Airway hyperresponsiveness
 - Lung eosinophilia
 - Tissue repair
 - Smooth muscle hypertrophy
- With regard to ILC2s in chronic rhinosinusitis and allergic rhinitis, which of the following is correct?
 - ILC2s have been detected at higher levels in eosinophilic nasal polyps compared with noneosinophilic polyps
 - Increased ILC2s have been found in the blood of pollen-allergic individuals during the pollen season
 - Increased ILC2s have been found in the blood of cat-allergic individuals after cat allergen challenge
 - All of the above
- Which of the following ILC2 regulatory mechanisms studied in human atopic dermatitis can control levels of skin inflammation?
 - E-cadherin binds to KLRG-1 expressed on ILC2s leading to ILC2 activation
 - E-cadherin binds to KLRG-1 expressed on ILC2s leading to inhibition of ILC2 activation
 - KLRG-1 binds to E-cadherin expressed on ILC2s leading to ILC2 activation
 - KLRG-1 binds to E-cadherin expressed on ILC2s leading to inhibition of ILC2 activation