

Development of innovative monoclonal antibody drug targeting dimeric TCTP/HRF for treatment of chronic inflammatory diseases

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IMMUNOLOGY	Lead
Product Type	Anti-TCTP/HRF monoclonal antibody (mAb)
Indication	Asthma and allergy treatment
Target	Translational controlled Tumor Protein (TCTP), also known as histamine-releasing factor (HRF)
MoA (Mechanism of Action)	TCTP/HRF exhibits cytokine-like activities associated with initiation of allergic responses only after forming dimers (dTCTP). Conversely, agents that inhibit dTCTP by preventing its dimerization or otherwise block its function, also block development of allergic reactions, thereby serving as potential drugs to treat allergic diseases.
Competitiveness	Currently, there are five types of mAbs for severe asthma that have been approved in Korea, but among them, dupilumab, which targets the IL-4 receptor, has the widest range of target patients among the five because it is indicated for severe type 2 inflammatory asthma and atopic dermatitis. Since the anti-TCTP/HRF mAb to be developed in this study has the effect of inhibiting the secretion of IL-4 and IL-13 as well as inflammatory cytokines in a mouse asthma model, it is possible to develop a drug that surpasses dupilumab.
Development Stage	Lead
Route of Administration	Intraperitoneal (i.p.) or intranasal (i.n) administration in a mouse asthma model