

The CAN04 antibody targets IL1RAP and mediates tumor growth inhibition and increased cisplatin sensitivity in a patient-derived xenograft model for non-small cell lung cancer

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IL1RAP – Interleukin-1 Receptor Accessory Protein





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Wang et al., Structural insights into the assembly and activation of IL-1 β with its receptors, Nature Immunol 2010

CANO4 (nidanilimab), a humanized and ADCCenhanced IgG1 antibody targeting IL1RAP



Ab (µg/ml)



IL1RAP is expressed in many solid tumors and hematological cancers



Initial focus (in house data, external data, medical need etc)





IL1 α and IL1 β are both present in NSCLC

IL1α IL1β Ctrl





The LU2503 NSCLC PDX model expresses IL1RAP, IL1R1, IL1 α and I1 β





CAN04 blocks IL-1 signaling and reduces tumor growth in the LU2503 PDX model





The CAN04 and cisplatin combination is more effective and less toxic that cisplatin alone





Targeting both tumor and endogenous IL1RAP allows synergistic effects with Cisplatin





Summary

- CAN04 (nidanilimab) is a humanized, ADCC-enhanced, IgG1 antibody targeting IL1RAP and thereby IL-1 signaling.
- IL1RAP, IL-1 α and IL-1 β are all present in non-small cell lung cancer.
- CAN04 treatment inhibits IL-1 β mediated effects and tumor growth in an IL1RAP⁺ NSCLC PDX model.
- The CAN04/cisplatin combination has improved efficacy to either treatment alone and reduced toxicity compared to cisplatin only.
- Combination effects are even stronger in a syngeneic model, in line with both a tumor cell intrinsic effect of IL1RAP targeting and an effect on the tumor microenvironment.





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