Novel, oral, selective tyrosine kinase 2 (TYK2) inhibitor with a unique mechanism of action demonstrated in two randomized, double-blind, placebo-controlled, 52-week trials that randomized patients with moderate to severe plaque psoriasis to either placebo or one of two deucravacitinib treatment regimens. Deucravacitinib, an orally selective, non-ATP competitive inhibitor of TYK2, binds to the TYK2 regulatory domain with high selectivity and inhibits TYK2 via a unique mechanism of action that is distinct from tyrosine kinase inhibition. The primary endpoint of the trials was the proportion of patients achieving sPGA 0/1 response at Week 16. Secondary efficacy endpoints, including the proportion achieving DLQI 0/1 response, were assessed up to Week 24. Deucravacitinib demonstrated statistically significant improvements in primary and secondary endpoints compared to placebo, with a rapid onset of action, as early as Week 1, and maintained efficacy throughout the study. Deucravacitinib was generally well tolerated, with the most common treatment-emergent adverse events being dry skin and increased alanine aminotransferase. The results of these trials support the use of deucravacitinib as a novel treatment option for patients with moderate to severe plaque psoriasis, providing an alternative to existing therapies with different mechanisms of action.

### Efficacy

*Significantly larger mean changes from baseline to ESA percentage improvement were observed in the deucravacitinib group vs the placebo group by Week 1, Week 2, and Week 4 (Figure 3).* Efficacy analyses

- **Shrinkage of active disease site:** Measured as change from baseline in PASI score. PASI, Psoriasis Area and Severity Index; ESA, Efficacy Study Analysis; Week, week of treatment; n, number of patients; CI, confidence interval;

- **Percentage improvements in mean PASI score over 16 weeks:** The percentage of patients achieving a PASI 75 response, with PASI scores of 0 or 1, was significantly higher in the deucravacitinib group compared to placebo at Week 16 (Figure 4).

### Conclusions

- Deucravacitinib, an oral, selective TYK2 inhibitor, demonstrated statistically significant improvements in primary and secondary endpoints compared to placebo in two randomized, double-blind, placebo-controlled, 52-week trials for patients with moderate to severe plaque psoriasis, with a rapid onset of action as early as Week 1, and maintained efficacy throughout the study. Deucravacitinib was generally well tolerated, with the most common treatment-emergent adverse events being dry skin and increased alanine aminotransferase.

### References


### Acknowledgments

- Financial and Funding Information
- Author Contributions
- Clinical Study Information
- Author Disclosures
- Additional Information

### Relationships and Activities

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- Author Contributions
- Clinical Study Information
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