

ALLOPURINOL (ALOPRIM; ZYLOPRIM)

- **Drug Class:** Antigout Agent; Xanthine Oxidase Inhibitor
- **Gene Responsible for Adverse Drug Reaction:** HLA-B
 - Allopurinol is contraindicated in individuals with the HLA-B*58:01 variant allele ("HLA-B*58:01-positive") because these patients are at significantly increased risk of allopurinol-induced severe cutaneous adverse reactions (SCAR). These patients should not be prescribed allopurinol, and an alternative medication should be considered.
 - A negative HLA-B*58:01 genetic test does not completely rule out the risk of adverse skin reactions, and all patients on allopurinol should be appropriately monitored. The American College of Rheumatology (ACR) recommends HLA-B*58:01 screening for subpopulations at higher risk for severe allopurinol-induced SCAR.
 - High Risk Subpopulations: Koreans with chronic kidney disease \geq stage 3 and all patients of Han Chinese or Thai descent
- **Sources:**
 - http://online.lexi.com.onu.ohionet.org/lco/action/doc/retrieve/docid/patch_f/6303?cesid=7ckqJmSIwtD&searchUrl=%2Ffco%2Faction%2Fsearch%3Fq%3Dallopurinol%26t%3Dname%26va%3Dallopurinol#geneconsdrlst
 - <http://online.lexi.com.onu.ohionet.org/lco/action/doc/retrieve/docid/42/6436268>
 - <https://www.pharmgkb.org/guidelineAnnotation/PA166105003>