

**How do IgA levels vary between different mouse strains**

IgA levels vary significantly between different mouse strains:

1. C57BL/6 mice:
   * Normal serum IgA range: 1.0 - 3.2 mg/ml[[1]](#fn1)
   * Higher fecal IgA levels compared to other strains[[2]](#fn2)[[3]](#fn3)
   * Exhibit age-dependent increases in fecal IgA levels[[4]](#fn4)
2. BALB/c mice:
   * Generally lower fecal IgA levels compared to C57BL/6 mice[[5]](#fn5)
   * Show different kinetics of intestinal and bronchoalveolar IgA production during parasite infection compared to C57BL/6[[6]](#fn6)
3. Lupus-prone mouse strains (MRL/lpr, NZB/WF1, SNF1, NZM2410, NZM2328):
   * Significantly higher fecal IgA levels compared to control B6 mice, even at juvenile age (4 weeks)[[4]](#fn4)
   * MRL/lpr mice show the highest abundance of fecal IgA at all ages[[4]](#fn4)
   * NZB/WF1 and SNF1 females have significantly higher fecal IgA levels than males[[4]](#fn4)
4. IgA-deficient mice (IgA−/−):
   * No detectable IgA in serum or mucosal secretions[[5]](#fn5)
   * Compensatory increases in IgM and IgG levels[[5]](#fn5)
5. Strain-specific differences:
   * Genetic background affects mucosal secretory IgA levels during parasite infections[[6]](#fn6)
   * C57BL/6J mice show higher bronchoalveolar IgA levels compared to BALB/c mice during Ascaris infection[[6]](#fn6)

These variations in IgA levels between mouse strains highlight the importance of considering genetic background when studying mucosal immunity and designing experiments involving IgA measurements.

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1. <https://onlinelibrary.wiley.com/doi/full/10.1111/j.1365-3083.2006.001762.x>

1. <https://pmc.ncbi.nlm.nih.gov/articles/PMC7213796/>

1. <https://www.biorxiv.org/content/10.1101/544015v2.full.pdf>

1. <https://pmc.ncbi.nlm.nih.gov/articles/PMC9417274/>

1. <https://www.nature.com/articles/mi201251>

1. <https://journals.asm.org/doi/10.1128/iai.00595-21>