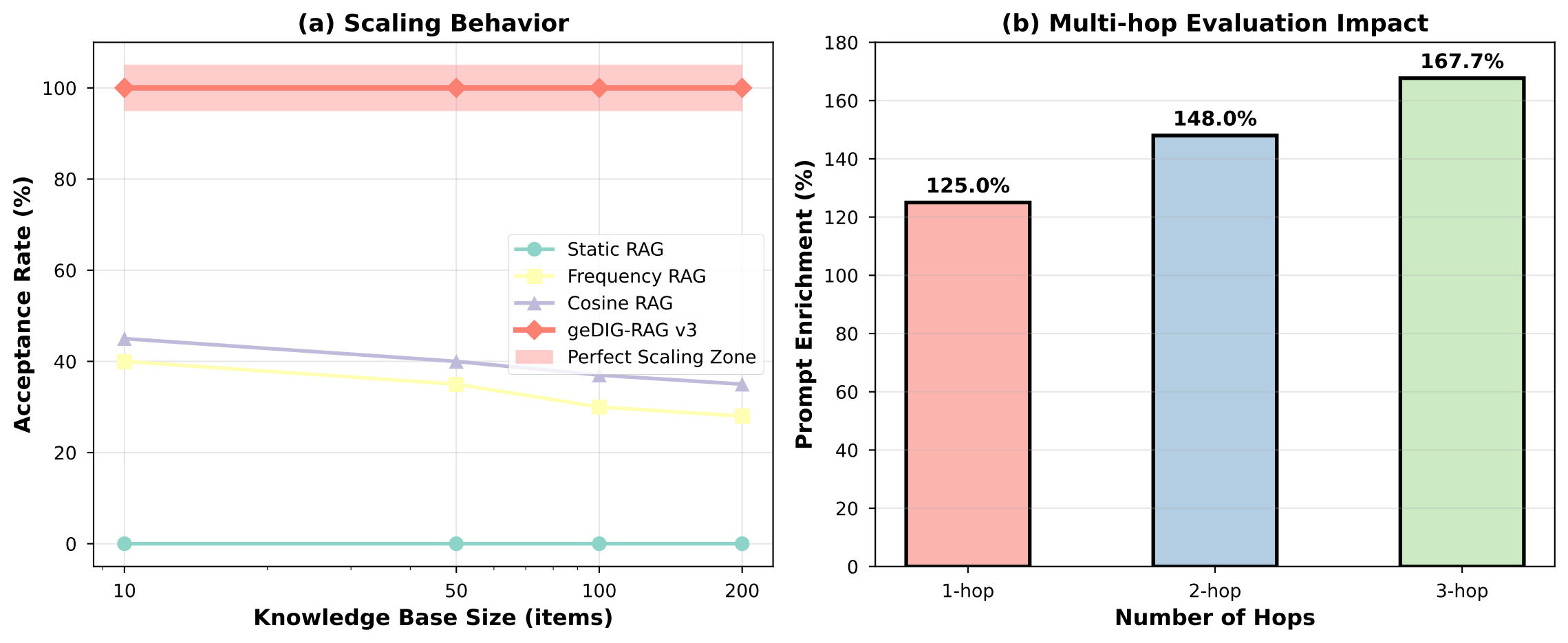
(a) Scaling Behavior
Acceptance Rate (%)
Knowledge Base Size (items)
Static RAG
Frequency RAG
Cosine RAG
geDIG-RAG v3
Perfect Scaling Zone
0
20
40
60
80
100
10
50
100
200
(b) Multi-hop Evaluation Impact
Prompt Enrichment (%)
Number of Hops
125.0%
148.0%
167.7%
0
20
40
60
80
100
120
140
160
180
1-hop
2-hop
3-hop