

User Query



"What types of cells does this protein seem to target in the retina?"



MFRQFYLTWTCLASGIILGSL...
GSLNNNIVEGTEKQSHSQSTSL

Contextual Integration



Context Injection
Prompt Builder

Adaptive Contextualization



Context Provider



Knowledge Base



Dataset Construction



Information Derivation from
Existing Data



Bilingual contextual learning

Please extract and integrate relevant information from the CONTEXT to accurately answer the USER QUERY question.

Bilingual Context

MATSASSHLSKAIKHMYMKLPQGEKVQAMYIWIDGTGE...
YFEDRGPSANCDPYAVTEALVRTCLLNETGDEPFEYKN

This protein is uniformly expressed **across the retina** but enriched in the ventral region where B cells reside; it may **contribute to photoperiodic photoreception**, though the underlying mechanism remains unclear.

.....

User Query

MFRQFYLTWTCLASGIILG... NIVEGTEKQSHSQSTSL
What types of cells does this protein seem to target **in the retina**?

This protein targets **photoreceptor cells** in the retina.

