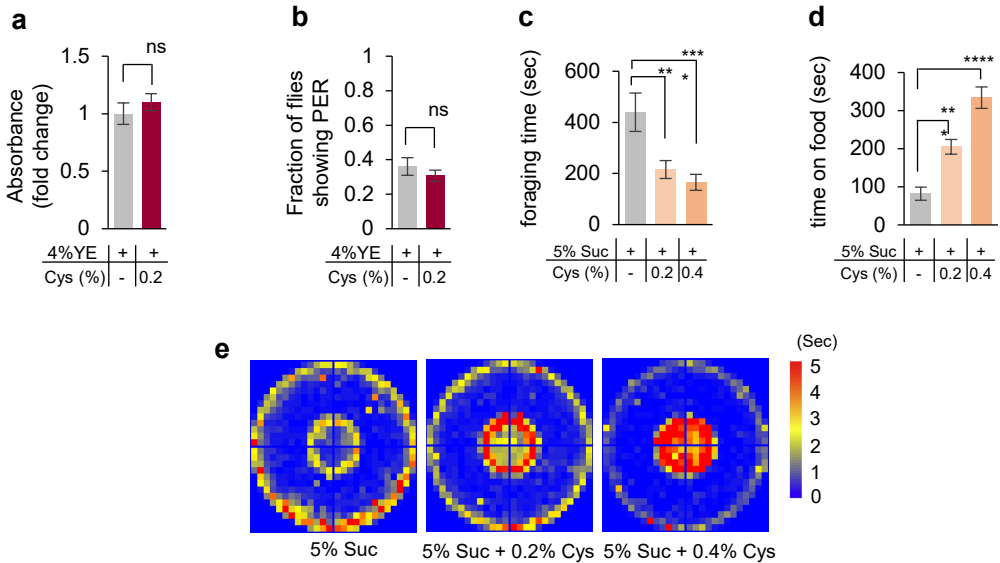


**Fig. S3**



**Fig. S3: Dietary cysteine enhanced foraging behavior in flies.**

**a** Food consumption of flies fed with 4% YE (grey) or 4% YE added with 0.2% cysteine (red) for 5 days (n=7-8). **b** Fraction of flies showing PER response to 4% YE added with 0.2% cysteine (n=5 groups, each of 10 flies). **(c-e)** Flies pre-fed with dietary cysteine in the video recording-based food seeking assay. Cysteine-fed flies were starved for 6 hours and then transferred into a behavioral chamber with a small food patch (5% sucrose) in the center, and their positions were recorded by a camera placed on top and analyzed by a custom computer program (n=31-43). **c** Latency to reach the food source. **d** Total duration on food. **e** Represent spatial distribution during the 10-minute assay. \*\*p < 0.01; \*\*\*p < 0.001; \*\*\*\*p < 0.0001. One-way followed by post hoc test with Bonferroni correction was used for multiple comparisons when applicable.